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Notes on the Practice of Osteopathy: From the Lectures of Dr. George M. Laughlin, Dr. George A. Still, and Dr. Frank L. Bigsby

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NOTES
ON THE PRACTICE
OF OSTEOPATHY

LAUGHLIN - STILL
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NOTES

on

The Practice of Osteopathy

From the Lectures of

DR. GEO. M. LAUGHLIN DR. GEO. A. STILL
DR. FRANK L. BIGSBY

*As delivered from time to time
in the
American School of Osteopathy*

PHILA. COLLEGE OF OSTEOPATHY
1822 Spring Garden Street
Philadelphia, Pa.

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IT is always a difficult matter for the student to get the full benefit of the Lectures and at the same time take a complete set of notes for future reference. To overcome this difficulty and also to furnish a trustworthy set of notes are the purposes of this little book. That it may accomplish these purposes is the sincere hope of the compilers.

ACUTE INFECTIOUS DISEASES

NOTES FROM LECTURES BY DR. GEO. LAUGHLIN

Acute Bronchitis.

An acute inflammation of the bronchial tubes, usually involving the larger tubes.

Causes: Usually secondary to acute rhinitis or pharyngitis. Cold and exposure. Infectious diseases. Lesions in upper dorsal and cervical regions.

Exciting Causes: Some infection.

Symptoms: Little temperature, headache, dullness, anorexia, cough, feeling of depression and slight pain over chest. Rales are present due to mucous in tubes. Trouble may last four or five days and then clear up.

Differentiation (bronchial pneumonia). Very difficult to differentiate especially in infants. In bronchial pneumonia symptoms are more severe. Rales are present. Dyspnea is more marked.

Treatment: Put patient to bed; give hot bath; hot drinks and sweat baths are good. Relax muscles. Spring spine.

Chronic Bronchitis.

Probably almost all causes of chronic bronchitis occur in older persons. Usually secondary to other chronic diseases, such as asthma, chronic nephritis, cardiac trouble, etc. Is more serious than acute.

Causes: Repeated attacks of acute. Some chronic trouble. Lessened enervation.

Bronchorrhea.

In which the patient coughs up much fluid. Oftentimes hypertrophy of mucous membrane as a result of inflammation may lessen lumen. More often the pressure of air causes a dilatation of tubes. The enlargement is not symmetrical. This is called atelectasis of the bronchial tubes.

Symptoms: No temperature. Patient feels weak; has rigid spine; lessened movement of ribs; cough; rales are present at all times; loss of weight.

Treatment: If secondary, treat primary trouble. Emphysema is secondary condition. Give vigorous, relaxing treatment in order to break up spine; get movement of ribs and loosen up chest.

Asthma (bronchial)

Is primarily a disease of the nervous system characterized by attacks (paroxysms) of difficult breathing.

Causes: PREDISPOSING: Neuropathic constitution. Spinal lesions.

EXCITING: Excitement, cold, indigestion, fatigue, peripheral irritation. An acute swelling of the mucous membrane takes place at the same time the contraction of the muscles of the bronchial tubes is going on. Muscles of neck stand out prominently as do muscles of the chest. Patient usually sits up in order to get his breath. Attack usually comes on at night.

Cardiac Asthma.

A condition in which compensation has been broken down. Dropsy develops and the patient experiences attacks of asthma. Renal asthma comes on in somewhat the same way.

Emphysema.

That condition in lungs in which they seem to be blown up. Caused by chronic inflammation of bronchial tubes. Barrel shaped chest due to breaking down of lung tissue.

Treatment: (asthma). Look for heart disease and kidney disease. For relief at time of seizure give good cervical treatment. Treat trapezius muscle; straighten patient up by placing knees in back, springing spine and lifting shoulders up. Try several times. Relief cannot be secured in all cases. If patient has drug habit better not take the case. "You had a hundred times better be dead than to acquire the drug habit."—Dr. Laughlin. Treat spine to build up nervous system. Correct lesions of spine and ribs. Bony lesions are usually to be found.

Broncho-Pneumonia.

Sometimes called a capillary bronchitis. Also called lobular pneumonia or catarrhal pneumonia.

Usually bilateral. Occasionally primary but more often secondary to measles, small-pox, whooping cough, etc.

Causes: Seldom attacks children over 3 years of age except in those who are ill nourished. Look out for broncho-pneumonia following whooping cough.

Symptoms: Cough, not so much pain as in lobar-pneumonia; catarrhal exudate; dyspnea. Do not get the hepatization as in lobar pneumonia.

Differentiation between broncho-pneumonia and lobar pneumonia.

BRONCHO-PNEUMONIA: Comes on slowly. Usually no chill. Evidences of malnutrition. Temperature 104° or 105°. Rales generalized. No areas of consolidation. Rapid respiration 75-100. Rapid pulse 150. Cyanosis. When secondary, temperature. Does not end by crisis. Retraction of interspaces. Occurs in poorly nourished. Sometimes in old people. Pneumococcus may be present. Bilateral. Not much pain.

LOBAR PNEUMONIA: Rapid onset. Chill. Temperature 102. Localized to lobe affected. Consolidation. Respiration increased. Crisis. Occurs in robust people. Pneumococcus is present. Unilateral. Great pain.

Insane people are particularly susceptible to broncho-pneumonia.

Treatment: A very fatal disease. Drugs are an entire failure. Osteopathic treatments are beneficial especially when cases are gotten early. Care of patient is in reality the most important thing.

Pleurisy.

A common disease. An inflammation of the pleura.

Causes: Due to cold (usually simple). Most of the cases are due to infection. Tuberculosis is the most common cause. This is not always accompanied by effusion. Accompanying pneumonia. Pain is quite acute and darting is characteristic. Is a common symptom in connection with acute infectious diseases. Spinal lesions and rib lesions. Wasting diseases, usually secondary. Pneumococcus, typhoid, colon bacillus, staph and strep cause pleurisy with effusion.

Symptoms: May show practically no symptoms. Pain; temperature (if condition is due to infection). Pain in side and side rather retracted. At first patient lies on sound side but if effusion occurs, causing pain, patient will lie on the affected side. Cough. Dyspnea. If effusion is present there is a dull sound on percussion. Diagnosed by bulging of side, by displacement of organs of chest, especially of heart. Palpation confirms former findings. Crepitant rales are to be heard on auscultation. Emphysema refers to effusion of the pleura containing pus material. If patient recovers collapse of lung usually results.

Treatment: (pleurisy). Rest in bed. Treat spine and correct lesions of spine and ribs. Light diet. If pain is consider-

able, bind up chest wall in retracted position. Use a couple of layers of adhesive plaster.

Pneumonia (Lobar)

(Croupous or Fibrinous pneumonia).

Lobar pneumonia is an acute infectious disease caused by pneumococcus and characterized by high temperature, rapid onset, chill, rapid rise of temperature, hepatization of lung and termination of disease by crisis. It is the cause of 8% of all deaths. Also common among animals. Is a contagious disease, 90% occurring between the ages of 10 and 50.

Causes: INDIRECT: Age, sex, (75% males), and cold are principal factors. Also shock, fatigue, worry, anything lowering resistance. Osteopathic lesions, MAINLY RIBS.

EXCITING: Pneumococcus, typhoid bacillus, all pus germs especially bacillus of Friedlander.

Immunity: No permanent immunity. More prone to have it after having once had it. Temporary immunity after attack of disease.

Clinical Course: Incubation period varies. Disease comes on with marked chill of from 10 to 30 minutes, sometime shaking the bed. Marked elevation of temperature, possibly to 104, remaining there, until crisis. No crisis until 5th, 7th, or 9th day.

Symptoms: Chill, nausea, vomiting, rapid respiration, bloody sputum, cough, consolidation about third day. Patient shows anxious expression. In bad cases delirium, pseudo-crisis.

Respiratory Findings: Pain from associated pleurisy. Beginning of disease, not at pleura, but at point of communication with bronchial tubes. Limitations of motion on side affected. Consolidation, mass turns gray, because of invasion of leucocytes. Resolution, absorbed in lymph stream and taken off in excretion. Difficult breathing, difficulty increases until crisis. Rate of 40 a bad symptom. Due to pleurisy and toxemia. Evidence of painful breathing in children, grunting with expiration. Cough, after spell of coughing, sputum. Then rest from coughing.

Sputum: First day—about normal. Second day—frothy containing air bubbles and traces of blood. When disease extends from one lobe to another, symptoms are kept up longer, (9 or 10 days), may terminate by lysis. In a day or two rusty sputum, containing blood cobweb like in appearance.

Pathology: Hyperæmia—24 hours. Consolidation (sometimes in a few minutes). Red hepatization. Gray hepatization. Resolution or induration or abscess formation with caving in of lung and chest wall.

Physical Signs: Full and rapid pulse, temperature, streaks of blood in sputum. Inspection: Patient favors the bad side usually lying on it to restrict motion because of pleurisy. Spaces between ribs show fullness. Diseased side larger. Limitation of motion.

PALPATION: Transmission of sound waves.

PERCUSSION: Once a day, percuss front, side, and back.

ORDER: lower right, lower left and up. Upper left last. Before consolidation, a tympany, (hyper-resonance). Then follows dullness. Get between ribs and thump hard and quick. More pneumonia on lower lobe than upper. Most common on right lower lobe.

AUSCULTATION: Put ear down to chest wall or use stethoscope. Moist rales, early-harsh, bronchial breathing (bronchophony).

NOTE: Most important signs are in inspection and percussion. Most important of percussion—dullness. Most important of inspection of motion—limitation of motion.

Circulatory Symptoms: Pulse about 120 in adult; above 140, bad prognostic import. After consolidation, pulse weak, irregular and rapid—bad. Pulse index in pneumonia.—MacDonald. 1st. Big bounding pulse. 2nd. Dicrotic pulse (third day), good symptom early. 3rd. Dicrotism disappears and pulse becomes weaker and irregular. 4th. Irregular following, bad sign showing heart disturbance.

Rate: Ordinary, 105 to 110. Good, 115. Severe, 120. Very severe, 125. Likely to die, 130. Unlikely to recover, 140. Heart muscle sometimes diseased, myocarditis. Pericarditis and endocarditis, often complications. Increase in leucocytes.

Digestive Symptoms: Constipated, tongue coated; no gas or diarrhea; loss of appetite and general disturbance; herpes on lips or face, good symptom by which you can eliminate typhoid and malaria, good prognostic symptoms.

Skin Symptoms: Dry and harsh; little sweating.

Urinary Findings: Febrile, diminished, traces of albumen. Color, dark. Amount, scanty. Urates greatly increased; no casts. Sp. Gr. high. Chlorides distinctly diminished.

Nervous Symptoms: Headache from toxins, delirius, (bad but not common), 2%. Develops from virulent case especially old people and alcoholics, fatal.

Cause of Death; Extremely rare, first three days. 5th, 6th, 7th, 8th day, usually. Due to toxemia. Extent of involvement of lung does not count.

Complications: Pleurisy. One of the most common, a pronounced symptom, develops early. Simple pleurisy with effusion; pus in pleural sac developing general empyema often requires two to three years for resolution; pus points and comes out between ribs; until discharge begins pus is coughed up.

Differentiation between Pleurisy with Effusion and Pneumonia: In pleurisy with effusion infection is direct cause. Cold and rib lesions predispose.

Symptoms; Pain in side, temperature, cough, flatness on side diseased. When sitting up, fluid goes to the bottom. Flat area moves unless there is too much fluid. Heart displaced. If fluid remains after month of rest use aspirator. Pleurisy terminates by lysis and runs longer course. In pneumonia, increase of vocal fremitus and rales; in pleurisy, no rales; rusty sputum, marked leucocytosis. Consolidation, second to third day. Termination by crisis; temperature; more toxic. In pleurisy, little temperature and not so toxic; no chill; no rusty sputum; dullness on bad side; not a complication but a separate trouble.

Heart: Cause of death in pneumonia is heart failure due to toxemia. Object of treatment: to keep up heart and circulation.

Endocarditis: Consolidation of lung throws extra work on right heart, possibly so quickly that hypertrophy is impossible. Result—dilatation. Infection of valves produces vegetations which, on breaking off, cause emboli; also on breaking off cause crippled valves. Streptococcus produces the worst kind of inflammation, not of itself a serious disease, but results in chronic organic disease of the heart. Endocarditis, more common where there is already a heart lesion.

Treatment: Aim to increase nourishment to heart; keep heart quiet.

Meningitis.

Not so common as pleurisy and empyema, although common.

Symptoms: Headache, retraction of head, scaphoid abdomen, produced by infection of meninges with pneumococcus. May recover without any results, but very frequently there is

Meningitis and Arthritis
as given here are com-
plications in pneumonia.

atrophy and paralysis of muscles. Worse still, patient may be left feeble-minded.

Lung Complications: Outcome—Resolution. Abscess or multiple abscess. Induration from fibrous tissue proliferation and collapse. Abscess may take 2 or 3 years in forming; pus at first coughed up. Later comes to head in front of axillary line in 4th or 5th interspace. Hypertrophy of sound side, collapse of diseased side, curvature of spine results.

Arthritis.

Hip joint most commonly affected; acute post-infectious arthritis following right after crisis. Infection of joint with pneumococcus sets up inflammation.

T. B.—Chronic inflammation of joint. Post-infectious, acute.

Differentiation: T. B. infection results from injury. Gonorrhoeal arthritis most often in knees, hips and wrists. No pus in gonorrhoeal or in rheumatism. Gonorrhoeal, most painful. Usually, both knees; rhumatic fever comes on with no previous history.

Principal of treatment quite similar to that of T. B., but application of it quite different. If joint is inflamed, due to infection; rest is absolutely necessary. No manipulation. Loosen D. and L. spine. To relieve pain, application of moist heat. After hot fomentation, apply hot antiphlogestine; leave 3 or 4 hours and keep hot with water bottles. After abscess forms, incision is necessary; usually some destruction of tissue; bony ankylosis may result.

Treatment: Prognosis depends largely upon resistance of patient and upon virulence of infection. Aim of treatment: to increase resistance, stimulate antitoxin in the body and aid elimination. Give vigorous spinal treatment several times daily; equalize circulation by gently springing spine and relaxing muscles. In all colds and lung trouble, trapezius muscle is contracted.

Diet: Non-fatty fluids, milk, eggs, beef juice, soups, plenty of water, fresh air, and sunshine. In first treatment early in disease, treat a half hour. Good cervical treatment; twisted ribs (almost) always present in pneumonia; twisted vertebrae often predisposing. Loosen pectorals in pleurisy. Loosen intercostals.

Crisis appears sooner under treatment. Vigorous treatment 3 or 4 times daily until period of consolidation then give milder

treatments. In first treatment hot foot bath followed by warm coverings in bed.

When consolidation has occurred: Right side—more fatalities. Thorough treatment but keep patient as quiet as possible. Treat from cervical to lumbar. Bowel treatment and enema. If sleeping, bed treatment. Keep patient quiet in bed for 10 days, looking out for heart disturbance. Get up by degrees. First prop up in bed; then in chair. For heart treatment lift ribs on left side.

Prognosis: Prune juice sputum toward crisis, probably fatal. Foul-smelling sputum, probably some other outcome then resolution. Delirium—Severe cases show bad symptoms of delirium. Tendency to stupor; picking at bed clothes. Alcoholics, Apical pneumonia shows delirium.

Erysipelas.

Acute, infectious disease characterized by eruption, especially on the face and caused by the streptococcus erysipelatus.

Causes; PREDISPOSING: Cervical lesions, skin abrasion, general debility, alcohol, Bright's disease, diabetes, rheumatoid arthritis, individual susceptibility, lowered resistance.

EXCITING: Streptococcus erysipelatus.

OTHER FORMS: Idiopathic: without any history of skin abrasion.

Bacteriology: Streptococcus,—one of the most common and most virulent of any known organisms. A contagious disease, particularly in old hospitals where it is very dangerous. Fear scarlet fever and erysipelas more than any other known diseases. Personal contact almost necessary to contract disease; germs live possibly a year in dark places. Almost impossible to cleanse hospital after epidemic.

Symptoms: Comes on like other infectious disease; chill in 75%, followed by temperature, 102 to 105; temperature remains as long as eruption remains on face. Swelling usually as initial pimple, sore and red; then spreads; usually confined to one side of the face; advances via lymph stream; connective tissue checks spread of disease and limits parts of body affected. Temperature increases as disease advances and goes up when new area is attacked. Toxic symptoms,—headache, constipation, loss of appetite, inability to sleep well, febrile urine, face red and shiny, skin puffy and smooth; skin peels.

Complications: Disease not usually fatal; runs from 8 to 10 days. One attack predisposes to another.

Nervous Complications: Headache, delirium in debilitated cases, prostration, meningitis, (infection reaching meninges along course of fifth nerve, caused by streptococcus erysipelatus.)

Heart Complications: Not so common as in many acute diseases. Watch pulse for heart symptoms.

Respiratory Complications: Infection of mouth, pharynx, larynx and possibly lungs (most serious but most rare of respiratory complications).

Septic erysipelas or sepsis: Pus caused by erysipelatus and not by pyogenes. Abscesses do not discharge freely as in boils. Chances are that these cases will be fatal.

In infants, infection may occur at birth, possibly through placenta or possibly through physician's hands and navel infection. CRIMINAL for physician attending such case to attend obstetrical or even minor surgical cases at the same time.

Diagnosis: Not difficult. Swelling on one side; hand over face shows hardness: (fight between leucocytes and disease at edge of disease.)

Prognosis: Good except in infants where navel is affected; develops peritonitis; fatal; mother in confinement develops puerperal fever; most cases recover in a week or ten days unless other diseases be present.

Treatment: LOCAL TREATMENT ON FACE: Saturated boric acid solution made in warm water and applied cold; if necessary, put piece of ice in solution; take a piece of gauze the size of face and up into hair; keep on continually; gives more relief than any other application; no antiseptic has much effect on infection but keeps surface clean and lessens pain. May prevent spread of disease. "Cold water as good as any antiseptic." Osler.

GENERAL TREATMENT: To increase resistance and eliminate toxins. Cervical treatment has more effect in preventing the spread of disease than any other; treat once a day; neck, particularly upper cervical shows rigidity, deep-seated contractures and great tenderness. Treatment increases circulation to head and neck. Part of contracture secondary to disease and part predisposing to disease.

Treatment for Toxic Conditions: Manifestation of the effects of toxins in spine; will be rigid, sore, pain in back, resist

pressure. In this state a waste of nerve force, hence general spinal treatment, especially 5th L. and over sacral. Bowel treatment; enema if necessary.

Prophylaxis: After treatment, hands and face should be washed; better for physician to wear gown. Room disinfected, bed clothes sterilized and not put with regular wash; do not allow visitors because of danger of spread of disease and because of patient. In abscess case, scars may result.

Whooping Cough (Pertussis)

An acute, infectious, contagious disease, characterized by slow onset, beginning in catarrhal stage and terminating in coughing stage. Characteristic cough, spasmodic and ending in long-drawn inspiration.

Causes: Age, Six months to six years; no immunity; most children seem to contract the disease when exposed; one attack confers immunity. Rare in grown-ups.

Sex,—65 to 70% females, probably because more subject to spasmodic disease. Season,—Spring and winter.

Other Causes: Cold, acute and chronic conditions, individual susceptibility, throat conditions, as enlarged tonsils, adenoids, etc. Susceptibility and chronic catarrhal conditions of upper air passages are two most frequent causes.

Osteopathic Lesions: Upper dorsal and cervical; muscular and bony; anterior dorsal; rotated atlas or axis quite possible; bony irregularity; no special lesion.

Exciting Cause: Bacillus described appearing in clumps, dumb-bell shaped; infection getting into nose, throat and eyes irritates throat seemingly just behind sternum.

Stages: Incubation period, about one week; no symptoms; disease comes on slowly. Prodromal: lasts about a week or ten days; headache, restless, little cold, little cough, coryza, bronchitis, some temperature. Convulsive: two to six weeks; sometimes all spring; average three weeks; where prodromal stage is long, spasmodic is shorter.

Symptoms: Spasms, 2 or 3 daily; mild case. A dozen daily, still mild case. Most at night. Ordinarily child feels well; little tingling below sternum indicative of on-coming cough, many short, rapid expirations. Child becomes black in the face, may become convulsive or unconscious; breath drawn in, long drawn out whoop; after a while, an exudate; vomiting very com-

mon during paroxysm; rapid loss of weight; food does not stay down long enough to be absorbed. 30 to 40 attacks daily, bad. 75 to 100 very bad; if very high, may die of toxemia; also more liable to complications. Decline: attacks become less and less.

Complications: Bronchitis— inflammation of bronchial tubes; little temperature, rapid breathing, rales in lung, acute and lasting but few days. Broncho-pneumonia: rapid and weak pulse; temperature 101-102. Toxic symptoms, rapid respiration. Lobar pneumonia,—very uncommon but possible. Convulsions, fits like epilepsy; clonic spasm or tonic; congestion in brain of blood not properly aerated; occur at end of paroxysm. Diarrhea, prolapsus of rectum possible; not simply indigestion, but due to bowel infection.

DIET, Boiled milk thickened with flour for gruel; sterile water; later albumen water, toast, vegetable charcoal carries enough oxygen to act as antiseptic.

Tuberculosis, non-resistant condition after disease; old lesion may be aroused; more common than in any other acute disease except measles; keep up body nutrition.

MECHANICAL COMPLICATIONS: Hemorrhage of brain, stomach, skin or eyes; most serious in connection with coughing; appoplexy may or may not cause hemiplegia; most cases of hemiplegia occur in first three years and are caused by such diseases as whooping cough or at birth. Dilatation of heart-muscle not well nourished, hence relative insufficiency. Hernia—Inguinal, femoral, umbilical. Muscle rupture. Rib fracture. After paroxysm muscles very sore; soreness relieved by treatment and by hot applications; when soreness is relieved between attacks they are less severe.

Prognosis: In uncomplicated cases usually good; mortality not more than 2 to 5%; causes of death; toxemia; broncho-pneumonia rare; most common complications is lobar pneumonia, diarrhea, spasm particularly with hemorrhage, strangulated hernia, dysentery, paroxysmal coughing, rupture. Prognosis poorest where many paroxysms occur daily.

Diagnosis: Not difficult; slow onset; one or two weeks catarrhal stage in upper air passages; inflammation of eye, temperature, hacking cough, characteristic whoop and cough developing.

Treatment: Theoretically:—case should be isolated; practically all but older people (nurses) will contract the disease; no

natural immunity; all diseases having contagious or infectious effects should be isolated, particularly those where mortality is high. Duty of physician to protect public health; after recovery, room should be disinfected as in more virulent disease; reasonable amount of exercise good;

Practically:—not well to confine child too closely; fresh air good; mild exercise out of doors in mild weather and middle of the day; in winter keep child in room with temperature 65 to 70 and with good ventilation.

BAD AIR MORE COMMON CAUSE FOR COLDS THAN EXPOSURE TO COLD.

Prodromal Treatment: Treat such as case of hay-fever, asthma, chronic bronchitis, chronic laryngitis, etc. Thoroughly relax upper dorsal and cervical especially trapezius; lesions common in cervical; give attention to jaw; special attention to ligaments and deeper structures; line up any bony abnormalities; second cervical commonly rotated. Examine articular processes; manipulate front of neck; spring jaw forward in any throat trouble; aids in drainage; have patient open jaw 1-2 inch, tell him to cooperate not resist; get behind angle of jaw and draw forward; give daily during prodromal stage; nothing to be done to relieve coughing at the time of attack; treatment to reduce severity and number of attacks should be given between times.

Care of Patient: In bad cases where there is much coughing, and vomiting, there is general body reduction; with constant coughing, inflammation of the bronchial tubes. Keep room rather warm and steam as in croup; build newspaper hood over bed, coming half over child and half over bucket of water. Drop hot bricks, hot irons or stones into water; for lime-steaming place good sized piece of unslacked lime into (not too much) water.

Diet: Light (solid food tends to bring on coughing); liquid-milk, beef-tea, soups given at intervals of three hours; cases may recover after few treatments; many prolonged.

Scarlet Fever (Scarlatina)

NOTE.—Acute exanthemata are small-pox, scarlet fever, measles, chicken-pox; book on the subject—Horlick.

Scarlet Fever is an acute infectious disease of unknown origin, characterized by rapid and stormy onset, febrile symptoms and eruption. Unlike any other acute infectious disease; eruption but rather like sepsis or exogenous poisons.

Causes: EXCITING CAUSE: Little known about it. Germ never isolated. Strepto. found present in 60% of cases. Strepto. possibly accounts for severity of symptoms, but not primary cause of disease. Disease spreads as do other contagious diseases by direct contact. Germ very tenacious; remains for long time in walls, carpets, bed-clothing, toys and books; it may live for a period of 10 years. (?) Physicians and nurses may spread disease; it is not contagious until eruption appears; most contagious during period of desquamation. A very serious disease; virulence increases with progress of disease. Mortality greatly reduced in past 30 or 40 years.

Symptoms: Period of incubation, 2 to 6 days; Horlic says 1 to 21 days; uncommonly more than a week; commonly 4 to 5 days. Characterized by extreme toxemia from very start, accounting for stormy onset. Headache, chill, high temperature, 104 to 105, sore throat with enlarged glands, severe vomiting; very sick. 2nd day: vomiting ceases, other symptoms appear; no eruption except goose-flesh appearance at root of hair; tongue clear at edges, but coated centrally; soon eruption, red, appears, first on neck, then on chest, then arm and front of leg. In small children, little roughness, but scarlet color that disappears on pressure; on older children, roughened areas; tongue clears and becomes very red with papillæ, (so-called strawberry tongue). In two or three days, skin peels, amount of peeling dependent upon severity of disease. High fever from start does not indicate the severity of the disease. Death often occurs second and third day from toxins; patient becomes weak and comatose. Eruption characteristic of disease; differs from eruptions in other infectious disease but is quite similar to drug-rashes and sepsis. Begins on neck, spreads on down to chest; solid, intermittent, bright red.

Throat: In all cases sore throat; in bad cases lymphatics extensively involved even more than in diphtheria; neck very puffy; sometimes protrudes farther than jaw; difficulty in swallowing. Membrane due to streptococcus pyogenes; in diphtheria, membrane tougher, more adherent and more continuous than in scarlet fever. Sometimes latter can be peeled off, leaving bleeding surface. Throat complications responsible for more deaths than anything else because of extreme toxemia.

Heart Complications: Endocarditis, more frequent than in diphtheria; Pericarditis and myocarditis possible but less

frequent; endocarditis symptoms should be carefully watched; temperature and pulse should be watched for a month.

Respiratory Complications: Broncho-pneumonia from spread of infection. Hypostatic congestion possible.

Nephritis. Most serious complications; 25% develop it about the third or fourth week; no other acute, infectious disease where it is so common. Characterized by a rapid onset, chill, prostration; may or may not have temperature; suppression of urine for possibly 24 hours, followed by symptoms of acute, diffuse nephritis; weakness, hydrops, scanty urine, large amount of albumen, hyaline casts, loss of appetite.

Treatment: Must give patient absolute rest; patient in recumbent position; increase elimination by large quantities of water; osteopathic treatment to kidney area; liquid diet until urine becomes normal; do not allow chronic nephritis to develop because incurable.

Special Sense Complications: Otitis media affects 7th nerve as well as auditory nerve. Extensive inflammation changes, pus forms, tissue of middle ear destroyed. All conditions of throat may involve middle ear, transmitted through Eustachian tube. May extend into mastoid bone causing mastoiditis. 99% of deafness except in mutes due to inflammation in middle ear.

EYES: Impairment of eye sight from poor nutrition to optic nerve due to toxic conditions leaving a general eye-weakness.

MENTAL IMPAIRMENT: Certain brain areas become inflamed and damaged from effect of toxins on brain. Meninges affected.

CHRONICALLY SWOLLEN LYMPHATICS: Swollen lymphatics may become a complication. Normally, glands become swollen to about the size of the thumb and remain so during disease. Results either in suppuration or in resolution.

Arthritis: Post-infectious type, rather common after scarlet fever, pneumonia and typhoid. Intense inflammation, pain and often suppuration within 2 or 3 weeks. Tissue destroyed by inflammatory process. In multiple arthritis, patient may succumb, pyemia may develop. Toxemia in multiple arthritis does damage. Bones not involved except joints.

Diagnosis: Not difficult especially in epidemic localities. Swollen lymphatics, especially diagnostic. Prognosis usually good if uncomplicated. Death in uncomplicated cases rare.

Treatment: Keep children away from public places, exposed children from school, etc. Isolate scarlet fever patients.

Otitis Media and Nephritis as given here are complications in scarlet fever. Management of case during desquamation on page 18 should follow general osteopathic treatment on page 17.

In small communities, difficult to establish rigid quarantine. Isolate exposed cases as well as sick child.

General Osteopathic Treatment: Exactly same as diphtheria. Stagnation of organs of elimination. Treat two or three times daily. Bad cases should be treated every hour or so. Throat treatment same as in diphtheria. Treat behind mastoid muscle at first gently, later deeply. If child resists throat treatment, omit it. To reduce swelling and lessen pain, apply hot fomentations or hot antiphlogistine. Heat or cold may be used. Which ever is used first, should be used throughout the disease. Use local antiseptic particularly early in the disease. Not a great deal can be done toward treating throat on the inside because patients are usually children.

If any antiseptic solution be desired for spray, gargle or swab, 4 or 5% boric acid solution. If nitric acid be used, use to touch up points in throat. Not good in diphtheria except very early. Tincture of iron also good in follicular tonsillitis. Avoid getting it on teeth because of erosive qualities.

Otitis Media.

Symptoms and Treatment: Earache. Sometimes cervical treatment gives immediate relief. Mastoid process gets very sore. Neck muscles become very rigid and tender. Relieve tension with hot application. Treat carefully for 15 or 20 minutes. Pus causing pressure must be gotten rid of. In majority of cases, pus will discharge itself. If it does not, the drum should be ruptured, after 12 to 24 hours in children or 24 to 36 hours in adults. Irrigation does not remove disease, but should be used occasionally to remove dried pus. To relieve pain, apply heat over back of neck or over ear. Dry heat best. Water bag, hot flannel, hot salt, dampen a little before heating. Irrigate ear with hot water. Follow with glycerine pretty hot, but be careful not to blister. In case of intense pain, cocaine may be used as a swab or a few drops put into glycerine. Impaired hearing comes not from rupture of drum but from impairment of conductivity of organs of inner ear. After rupture, neck muscles relax, pain disappears. Treat neck until discharge ceases.

Nephritis.

Symptoms: Hydrops in spinal muscles. Hydrops, cedema and puffiness of face. Urine 2 or 3% albumen. Numerous casts. Amount scanty. Sp. Gr. high, increase in solids. Usually

comes on in third week or in convalescence. Nephritis should not run more than 2 or 3 weeks. If longer than this, likely to become chronic.

Treatment: Osteopathic absolutely the best. Spinal manipulations, daily or perhaps twice daily. Exercise—passive motion. Manipulate legs, arms and back, giving benefits of exercise without exertion. Active exercises as walking, etc., is bad for kidneys. Analysis of urine every other day. In diet, avoid eggs because of albumen. Carbohydrate diet, broths and cereals. Best diet milk, a glass every 3 hours. After the urine becomes normal, 1 to 2 quarts daily.

Management of Case During Desquamation: Desquamated material, fine in type like dust. Hanging bed-clothes on line a dangerous act. As soon as desquamation begins rub child with olive oil, sweet oil or vaseline. Give daily soap and water bath with mild antiseptic. Follow with oil. Keep up until desquamation is complete. Where there are several children, often a good plan for nurse to stay with isolated child. Hang sheet, moist with bi-chloride solution over door. Silver nitrate as general swab—3% solution.

ACUTE ARTICULAR RHEUMATISM (Rheumatic Fever)

Acute Poly-Arthritis.

Very common. 2 or 3% of cases admitted to hospitals. Micro-organisms not demonstrated. Acts like other acute diseases. Comes on suddenly, runs definite course and shows symptoms to lead us to believe that it is acute.

Causes: Cold, fatigue, exposure, overwork, worry. Pneumonia and La Grippe. Age, most common between 10 and 30. Sex, most common in men. Season, spring and winter.

Exciting: Infection not known. Thought that infection enters through the throat. May become general, producing toxin which irritates joints and sets up inflammation. "Seat of infection, throat. Infection spreads from there."—Edwards.

Rheumatism is that disease either acute or chronic where a toxin is produced which has a special affinity for joints and muscles.

Prodromal Symptoms: Headache, backache, general ache like grippe, temperature, slow onset.

Symptoms: Usually temperature not over 102 (remitting) runs up when new set of joints is attacked. Rather slow onset

without chill, sore throat, stomach upset, general bad feeling, constipation, polyarthritis, coated tongue, no appetite. After temperature rises, patient sweats profusely. Peculiar odor to sweat. Urine scanty and high colored.

COURSE: Usually not more than three weeks, but possibly more, even 12 or 14 weeks.

IMMUNITY: Usually after three attacks. Erysipelas or pneumonia predispose to subsequent attacks.

PROGNOSIS: Few deaths and only a few cases leaving permanent affection of joints.

Complications: Bad effects more than in all other acute diseases.

Heart: Endocarditis in more than 50% of cases resulting in chronic heart trouble (leaky valves). Valves especially the mitral affected. Determined by character of pulse and by murmurs.

Arthritis, Chronic or Sub-Acute.

Remains in joint 8-10-12-13-14-16 weeks. Patient shows fever. A deformed joint is the result. Deformity can be corrected by operation. Then weight kept on foot.

Nervous Complications: Intense headache and meningitis.

Respiratory Complications: Broncho and lobar pneumonia.

Treatment: Well ventilated, warm room (65 degrees), fresh air, patient quiet in bed. Do not manipulate affected joint. Use hot bottles, any good application. Restrict motion by bandaging on splints, where there is very severe pain. Disease not in joints. Aim of treatment, to increase elimination. Treat kidney area and manipulate bowels. Give general spinal treatment. Spring spine. Loosen tissues. Line up vertebræ as well as possible. Not possible to correct many bony lesions. Treat neck to relieve headache. Give treatment from 20 minutes to a half hour once or twice daily.

Diet: Just as important as treatment. Keep patient entirely on milk diet. Milk natural diuretic. Buttermilk or sweet milk (2 qts. daily). After temperature subsides, give soft boiled eggs, soups, toasts, etc.

Care and Management of Case: Needs constant attention. Daily bath. Lift patient out of bed and place in bath tub. If this is not possible, give sponge bath, very hot. Treat

on left side, 3rd to 7th rib to increase nutrition to heart and lessen chances for endocarditis. Keep perfectly quiet for 2 or 3 weeks after temperature subsides to prevent heart complications.

Diphtheria.

An acute infectious disease, caused by Klebs-Löffler bacillus and characterized by formation of membrane at sight of infection and by certain toxic symptoms due to infection. (Membrane forming in throat outside of Klebs-Löffler infection, due to streptococcus.) Severity of disease depends upon resistance of patient.

Bacteriology: An old disease, dating to B. C. Klebs discovered bacillus and Löffler experimented on animals and added to knowledge concerning it. Positively known to be the cause of diphtheria. Very virulent and lives for considerable time outside of body. Lives best in clothes, books, toys, etc. Danger to physician of local infection of eye or ear from bacillus coughed or sneezed out by patient. Danger of lung infection and result in broncho-pneumonia from tracheotomy.

Causes: PREDISPOSING—Age, 2 to 15. Mortality greatest 2 to 7. Season—cold months. Cold. Bad teeth, bad throat, tonsils adenoids, etc. Lack of resistance.

Immunity: Natural or acquired.

Exciting: Klebs-Löffler bacillus.

Types: 1. Local, seat of lesion, surface. 2. General—seat of lesion and through blood stream to other parts of body. 3. Septic—virulent, toxic pus—fatal.

Symptoms: Slow onset (1 or 2 days). Maybe initial chill, but not usual. Temperature 103, 104, 105, which subsides by lysis after 3 or 4 days. Puffiness of throat, œdema, redness, false membrane most commonly on and behind tonsil. May start in several spots. Lips swollen, mouth dry and parched, foul breath. VOMITING, constipation.

Character of Membrane: Probably measure to protect throat from bacillus. Membrane tougher and containing more fibrin than other throat membranes of throat. Spreads over whole area of tonsil. Tonsil not much enlarged. Membrane dirty, yellowish-white. As child recovers, membrane becomes necrotic. Membrane should never be pulled off until it becomes necrotic. No particular reason why it should be pulled off at all.

Toxic Symptoms: Stupor, sleeping with open mouth. Death comes within a week, if fatal.

Complications: Nephritis, pneumonia, myocarditis, paralysis (soft palate most common), disturbance of accommodation, ear trouble, meningitis, encephalitis.

Local Treatment: Good antiseptic. Application of about 3% boric acid or 25% solution of peroxide. Usually apply before child is real sick. For older individuals, a gargle of permanganate or of bi-chloride or 1-2 % solution of AgNO_3 . Bi-chloride 1:5000—adults. Listerine, children.

Osteopathic Treatment: After child becomes toxic, spine is stiff and muscles rigid and very tender. Treatment at first gentle. Take time to gain child's confidence. Kidney area, 9th D. to 1st L. very tender. Loosen entire spine. Then relax cervical region behind sterno-mastoid. Take about 20 minutes to loosen up spine. In front rare judgment is necessary in treating. Do not treat throat at all in beginning. Treat gently but be very careful. Deeper treatment later if possible. Treat several times daily. Relax digastric muscle just behind angle of jaw. Local applications as hot fomentations, antiphlogistine and cold packs questionable. Meet with varying degrees of success. Depend principally upon osteopathic treatment.

Antitoxins: Bad effects. Heart failure. Abscess formation where needle is used. Other diseases. If used at all use as soon as the case is diagnosed. (300 to 5000 units.)

Chicken Pox (Varicella)

An acute infectious disease caused by an unknown virus and characterized by an eruption.

Causes: PREDISPOSING—Age; highly contagious among children.

Symptoms: More pronounced in adults than in children. Incubation period—10 days to 2 weeks.

Prodromal Symptoms: Headache, backache, gastric disturbance, toxic symptoms.

Eruption: First on trunk—vesicles not numerous, not more than a dozen or two. In small pox, possibly thousands. First day, 4 or 5 or possibly a dozen little red spots. Next day, elevated. Spots become vesicles. Clear fluid under elevation of skin. Vesicles do not last long. Dry up without forming pus. Some do form pustules. Red area extends out about the size of a dime. Do not leave scars.

Differentiation from Small Pox: Chief difference, does

not last so long. Does not often form postules. Crust not so thick, sharp, pyramidal shaped vesicles. Small-pox may be two to three hundred on face, fifty on back of hand and several thousand on body. In small-pox, on fourth day, postules develop.

POSTULE: 1. Shot-like feeling of skin. 2. Grown in size. 3. Well marked dome-shaped vesicle. 4. Postules. 5. Umbilicated, drops down in middle. Black spot in center. When crust dries and comes off, leave skin dark.

Complications: Sometimes practically no temperature in chicken pox. May be 102. High temperature always indicates complications. Temperature does not continue after eruption.

Nephritis: In convalescence; mild order.

Pneumonia: Not common after chicken pox, because toxic symptoms are not marked nor resistance greatly reduced.

Treatment. Rest in bed. General spinal treatment to quiet patient. Plenty of water. Light diet. Aid elimination; keep bowels open. Use enema if necessary. If vesicle becomes ruptured, danger of infection. A scar likely to result. Keep clean and moist for a few days. Oil with sweet oil or vaseline to prevent pitting.

Malaria.

An acute infectious disease caused by plasmodium malariae introduced into the system by a mosquito. Characterized by certain symptoms as chills, sweat and fever. Not contagious.

Causes: PREDISPOSING—Lack of resistance and climate. Chronic diseases.

EXCITING—Parasite from salivary gland of mosquito.

Life cycle of parasite.

In man—Inoculated into blood stream, mosquito carrying parasite in salivary gland. First floats several hours in plasma. Then attacks red blood cells, digests hemoglobin, destroys cells. Time of destruction of cells depends upon kind of parasite. Parasites sporulate (10 or 20 spores) enter blood stream, again attack blood cells and process continues. Connected with sporulation, symptoms of disease—chills, sweating fever, toxic symptoms.

IN MOSQUITO—Sexual forms of parasite in malarial blood stream do not attack red cells. Mosquito sucks up from blood sexual form, thus propagating species. Taken into stomach. Thence to blood and lymph.

Varieties: (4 or 5, all due to parasites of mosquito.) **TERTIAN**—Most common. Chills every third day. Takes 48 hours

for sporulation. QUARTAN—Every day. Rare. ESTIVO-AUTUMNAL—More or less chronic. Rather continuous, not intermittent. Disease runs long course. Develops certain nervous and gastric symptoms.

Symptoms: Chill, temperature (102 to 103) Lasts a few hours. Then followed by sweat. Then patient is free from symptoms and feels pretty well. If not re-inoculated will get better in a few weeks. Will have a certain immunity. Sporulation, producing toxin brings on chill. Blood congested in central part of body with anemia in periphery. Affects nervous system. Fever caused by toxin. Sweating caused by the effort of nature to get rid of toxins.

Blood Findings: Anemia, reduction of red cells one-half or more. No leukocytosis. Leukocytosis, indication probably of sepsis. Always well to look for parasite in blood examination during chill or immediately after. Parasite inhabits internal part more than periphery. In chronic malaria, often difficult to find it all.

Physical Findings: Enlargement of spleen, symmetrically enlarged and hard. Spléen detected by notch on border. Liver enlarged possibly six times usual size.

Respiratory Symptoms: From inflammation along tract. Also of nervous origin. Broncho or lobar pneumonia (atypical).

Digestive Symptoms: Loss of appetite, nausea, vomiting, constipation or diarrhea, ulcer of bowel, hemorrhage, gangrene.

Nervous Complications: Headache, backache, paralysis (hemiplegia, paraplegia, peripheral neuritis or multiple sclerosis.)

Special Senses: Eyes, but not common.

Diagnosis: From symptoms and blood findings. No difficulty in diagnosing acute. Greater difficulty in chronic cases. Often confused with typhoid. Symptoms chill, fever, sweat. In chronic, the symptoms are less pronounced, temperature subcontinuous. Blood findings, anemia and plasmodium.

Differentiations:

MALARIA AND TYPHOID: Typhoid comes on more slowly. Remits one or two degrees daily. Toxic symptoms, third week. Stupor, tremor, gastro-intestinal complications. Malaria and T. B. In T. B., active subcontinuous temperature. Does not intermit. No muscular tremor.

SEPSIS AND MALARIA: Chill, temperature and sweat periodically. History of case, principal differentiation. Careful phy-

sical examination often reveals an abscess. No plasmodium Laveran, but do find leukocytosis.

CHRONIC MALARIA: No sudden chill as in acute. Patient loses weight and becomes anemic. Loses strength. Marked gastro-intestinal disturbance. Collapse. Pulse very weak and rapid. Spleen and liver much enlarged.

Prognosis: Good for recovery. Patients do succumb, particularly if remaining in malarial districts. Not from toxic symptoms, but from secondary anemia.

Differentiation between pernicious anemia and pernicious malaria:

MALARIA—Lose weight rapidly. ANEMIA—Maintain weight.

Chronic malaria usually due to re-infection or else to disease not becoming self-limited.

Treatment: Responds readily to osteopathic treatment, particularly where patient is removed from malarial district. Both acute and chronic respond readily. Chronic absolutely resists other treatment.

Prophylaxis: Predisposing cause is climate, condition of soil and drainage. Necessary in fighting malaria to drain swamps. Mosquito will not breed in running water. Common in lumber camps in the South, among workmen putting through new railroads, etc.

Guard house from entrance of mosquito especially at night. Less danger on second floor. Patient should be protected from mosquito bite, thereby checking life cycle. Quinine given in liberal doses used to suppress malaria. Said to be toxic to plasmodium. If given at all, must be given at time of chill when spores are free in Plasma.

Osteopathic: The theory—Increase resistance of body and overcome toxins of disease.

Tertian form: To relieve chill and shorten course, with patient on one side, give thorough dorsal treatment. Push back on shoulder and forward on thigh. Result—equalizing of circulation. Five or ten minutes treatment will stop chill which otherwise might run thirty minutes. When symptoms are marked, treat as in typhoid. Especial attention to splanchnic area. Good spinal treatment especially to innervation to liver, spleen, and gastro-intestinal tract. Good care, good air, good food. Most acute cases, if re-inoculation does not occur, terminate in four or five weeks, even in two or three weeks.

Cases of chronic malaria, treated much as chronic gastritis. Very little improvement until temperature is reduced. Patients may continue six months before reduction of temperature.

Treatment: Rest in bed. Diet very difficult. Patients some times refuse to eat, and it is difficult to retain food. Liquid diet best. Perhaps later on add semi-solids as cereals, toast egg nog, peptonized milk. Good spinal treatment. Correct rib lesions.

Convalescence: Principally directed to liver and spleen. Correct ribs and vertebræ, establishing normal motion. Manipulation of liver beneficial in congestion, hypertrophic cirrhosis, malarial enlargement. Helps express blood from liver. Careful manipulation to liver good except in cancer, etc. Patient on back, pull up with hand under ribs. Push down with hand at ant. margin of ribs. Some treatment to spleen. Greater care because of rupture of spleen being possible. Manipulate gently. Do not press between hands, but gently lift up into place. In acute malaria, after fever subsides, there may be considerable enlargement of spleen and liver. Usually subsides after disappearance of fever. Even without manipulation, will return to normal. In chronic, manipulation is necessary for return to normal. Always safe in lifting organs into place.

German Measles (Rubella)

Not common. Recognized only recently. Hybrid between scarlet fever and measles. An acute, infectious disease caused by an unknown virus and characterized by mild symptoms and rather rapid onset.

Causes: PREDISPOSING—Age, mostly children. Season, Spring. No complications.

Symptoms: Incubation period about the same as measles. No Koplik spots. Temp. very little (1-2 to 1). Headache, rash early. Slight enlargement of cervical glands, especially post. cervical.

Eruption: Not so prominent as in measles. Not so high. Small elevations, not so dark. More enlargement of glands than in measles. Constitutional symptoms insignificant.

Diagnosis: Easy, more likely to confuse with scarlet fever than with measles.

Treatment: General and hygienic.

Small Pox.

An acute, exanthematous disease caused by virus of unknown origin and characterized by temperature, toxic symptoms and peculiar eruption. A very old disease, dating back into middle ages.

Causes: PREDISPOSING: Scarcely to be considered. Practically every one exposed contracts the disease.

EXCITING CAUSE: Infection, possibly parasite.

Aboriginal people especially susceptible to small-pox. More fatal among colored than among white people. Possibly through ignorance of hygienic living. Disease is contagious. Can be carried by third party. Adheres to furniture, clothing, etc. Virus may live a year or longer.

Point of Entrance: Through lungs or respiratory tract.

Symptoms: Well marked. Incubation period varies from 5 or 6 days to three weeks. PRODROMAL—Chill, temperature (2nd day, 105, possibly 106). Intense headache, frontal, backache, ache in legs (feels much as though coming down with grippe). Intense gastric disturbance. Vomits a great deal, later vomiting bile. Postules appear about the ninth day. When postules come out, temperature goes up. Chances are that after eruption appears, little or no temperature. Patient very comfortable.

Differentiation: On fourth day, bodies appear under skin, usually first on back of hand. By third day after appearance, become vesicles. Fourth day becomes umbilicated. May be few or many postules. If they appear in throat, cause most trouble.

SMALL POX	CHICKEN POX	SCARLET FEVER
Rather sudden	Mild prodroma	Sudden onset.
Temp. to 104	Little temp.	High temperature.
Postules in 9 days	Eruption appears	Sore throat.
Fully developed.	early	Rash, 3d or 4th day
Vary from few to thousands.	Constitutional symptoms much less	Enlarged lymphatics.
Nausea and vomiting	marked.	
Headache and backache.		

Types: Discreets *Vareola vera*. Confluent—Postules run together. Hemorrhagic—Black small pox. Postules turn black because of presence of blood. Varioloid: A mild form of small pox due to vaccination.

Prognosis: Good.

Complications: Nervous. Beginning of disease. Intense headache. May resemble meningitis. Alcoholics develop delirium. Paraplegia, not true one, but paralysis accompanying intense backache. May be true paraplegia. Peripheral neuritis.

Respiratory: May develop pneumonia, but rare.

Digestive: Extreme first few days, but if continuing, indicative of extreme toxemia. Will probably run temperature.

Kidneys: Congested, suppressed urine. May be trace of albumen, but rarely nephritis.

Skin: Erysipelas, gangreen, ulcers.

Heart: No serious complication. Pulse full and rapid. No endocarditis. No treatment necessary to support heart.

Vaccination: TECHNIQUE—Arm should be scrubbed with soap and water. Scrape skin with sterile knife until a little lymph oozes out. Virus applied. Then dress with sterile gauze. Keep in place by adhesive strips. After four or five days, vesicle forms, then postule and arm heals.

COMPLICATIONS: Erysipelas, inoculated probably from dirty knife. T. B. and syphilis.

Public Health: Case should be isolated and quarantined and person in charge should stay with patient. Possible for third person to carry disease. Disinfect room with formaldehyde. Sterilize bed clothing and other clothes. Physician should wear gown and wash hands and face with antiseptic.

Treatment: Treat thoroughly until eruption appears. After that hardly any treatment. Bowels kept open by milk laxative and daily enema. Plenty of H₂O. Principal treatment through eruptive stage to keep patient comfortable. Mild solution bi-chloride of mercury 1:5000 applied over body with sponge or gauze. Antiseptic will dry postules. Be careful of salivation. Mild solution carbolic acid as a local antiseptic and for relief of itching. Good effect on postules. Zinc ointment good.

TO PREVENT PITTING: Perhaps no pitting in confluent. Keep scars soft. If very large, open with needle and let pus out. Use olive oil or vaseline to keep soft.

Cantharides: Produces a blister in about 48 hours. After three or four days dries up and falls off. Produces a toxin.

Three Ways of Infection: Instruments. Virus itself. Bacillus may be on surface of skin.

Measles.

Very common disease. An acute infectious disease, highly contagious. Peculiar fever characterized by double onset. Disease presents two stages, catarrhal and eruptive.

Causes: PREDISPOSING: Age, season, susceptibility. Greater susceptibility than in any other acute disease.

EXCITING: Very little known except that it is acute infectious, produced by an unknown virus. Spreads more than any other infectious disease because prophylaxis in measles is less possible. Age, mostly 2 to 5—50%. 5 to 10—40%. After 10—10%. In infants, almost unknown. In adults, very serious disease because of complications. Death often from broncho-pneumonia.

SEASON: Most cases in winter or early spring.

Immunity: Not as a rule carried by a third person. One attack usually produces immunity.

Stages; Incubation; Catarrhal; Eruptive; Desquamation.

INCUBATION: From getting virus to beginning symptoms, about ten days. No symptoms.

CATARRHAL: Most contagious during this stage. First symptoms, frontal headache, intense coryza (characteristic) tongue slightly coated, temp. 2nd day 102 to 103. Then goes down. Photophobia.

ERUPTIVE: Catarrh does not disappear, but eruption appears about the 4th day. Comes on cheek, forehead, fore part of body, wrists and on over body. Lasts 4 to 5 days. Mostly hyperæmia but some postules. Mostly round macules. Between patches or eruption, clear skin. In some cases, considerable swelling. Fourth or fifth day, eruption disappears. If no complications occur, in two weeks, child is over disease. **KOPLIK's Sign**—Appears before eruption. Mucous membrane of lips and cheek red. Spots on membrane—little white or bluish point (possibly only 4 or 5 in mouth) surrounded with red. May be as thick as they can stand.

Complications: **RESPIRATORY:** Most deaths occur from respiratory complications. Bronchitis always a symptom of measles. Two diseases highly fatal—Broncho-pneumonia and T. B. Measles accompanied by severe sweating, rendering the patient liable to colds. If broncho-pneumonia develops, fever does not drop. Broncho-pneumonia may last only 2 or 3 days.

TUBERCULOSIS: Very frequently follows measles. Protec-

tion around old T. B. lesion has been dissolved and rather acute T. B. develops. Measles affecting the upper air passages with inflammatory processes paves the way for infection.

Nervous Complications: Headache, delirium, coma.

Diagnosis: Usually easy, especially if familiar with character of eruption from temperature and rash. Acute coryza in first stage and Koplik's sign in second stage. Eruption about the fourth day. At disappearance of eruption, temperature returns to normal.

Differentiation MEASLES AND GERMAN MEASLES: Measles comes on more slowly. Slower rise in temperature. Higher temperature. Longer desquamation. Coryza.

SCARLET FEVER: Comes on suddenly. High fever at start. More extreme toxic symptoms. No coryza but instead, sore throat. Eruption shows no elevation of skin.

Prognosis: Good. Practically all cases, uncomplicated, recover except infants.

Treatment: Much like treatment in scarlet fever and diphtheria. Success in preventing spread of disease not great. Clothing utensils, etc., should be disinfected. Do not shake clothing out of doors. Hang sheet over door of sick room. Almost no danger from heart complication.

Spinal Treatment: For coryza, good cervical treatment. Deeper, more vigorous treatment possibly than in scarlet fever. Treat around nasal and orbital region. Pressure.

Bowel Treatment: If necessary, use enema. Lift up sigmoid and cæcum. Constipation—result of toxins and also of not taking usual amount of food.

Rash: No particular treatment. If eruption is slow in coming out hot applications will bring it out. Care should be taken not to catch cold. To relieve itching, 1% solution carbolic acid. Oiling and bathing to prevent spread of desquamated material as in scarlet fever.

Eyes: Photophobia. Questionable if it is wise to keep room dark. Treatment will do much to relieve pain. Wash eyes with boric acid solution 5% in sterile water. Use daily.

Otitis Media: Not common as in scarlet fever because less throat trouble. Relieve pain as in scarlet fever.

Tuberculosis: Temp. of 101 or 102 and loss of weight—not good. Deep breathing and exercises not advisable in pulmonary T. B. In all inflammatory conditions due to infection, keep

part absolutely quiet. Walling off accomplished much better if rest be maintained. Patient kept in bed, but not indoors.

Osteopathic: Do not give vigorous treatment.

Typhoid Fever.

An acute infectious disease caused by bacillus typhosus, characterized by certain pathological changes in the intestines and clinically known by peculiar temperature.

Causes: PREDISPOSING: Season of the year—summer and fall. Age—Early adult life (15 to 25 or 50). Sex—Men more than women, mortality greater in men. Osteopathic Lesions—No specific lesion. Any lesion lessening resistance in alimentary tract, especially 11th and 12th Dorsal. Chronic diseases.

EXCITING: Specific bacillus, thru uncooked foods, drinks, oysters, milk and water.

Symptoms: Pathological—1st week: Swelling in the small intestine. 2nd week: Swollen spots sluff open. 3rd week: Week of ulceration. 4th week: Ulcers heal and scar tissue forms.

Temperature: Continuous after it reaches height. Slow step like rise and descent. No temperature until the onset of the disease. Not often chill. Temperature goes up gradually with increase of toxemia. Incubation period ends at time of appearance of temperature, usually first to second week.

Skin: Rose spots. Hyperæmic, discret and few (10 to 20 at one time). Sparse. Crops don't last long—about one day. Rose spots particularly on abdomen and chest, along about the third or fourth day of the disease. Not so prominent as a mosquito bite. Center red and elevated like a pin spot, red gradually shades out to the size of a ten cent piece. Spot disappears on pressure (Hyperæmia). (Gerdine says spots appear 7 to 10th day.)

Splenic Tumor: Spleen goes to about three times its normal size. (Comes on about end of first week.)

Circulatory: Impaired. Slow pulse from effect of toxins heart muscles. Dicrotic pulse due to lack of tone of vessel walls. (About 90 per min. pulse beat.)

Nervous: Very pronounced from toxic action. Headache, 5th nerve especially sensitive to toxins. (All headaches are due to toxins. Headache present only the first week. Nervous system becomes immune or resists after becoming accustomed to toxins, establishes a certain degree of toleration. Delirium and

Tremor. Bad prognostic symptoms—very, very toxic and a bad nervous system.

Typhoid State: Persists considerable time. Delirium, bowel disturbance (gas, vomiting.) Most deaths occur during typhoid state, during second or third weeks.

Termination: Disease subsides by lysis, temperature going sub-normal. Course variable, determined by age and severity of infection. Usually three or four weeks with convalescence three or four weeks

Cause of Death: Not often from complications but from overwhelming of system with toxemia. Pulse becomes rapid, loses volume. Eyes become fixed. Dependent upon resistance, virulence of infection and care of patient. If not occurring during typhoid state (second, third or fourth week) may be collapse due to heart failure—action of toxemia on heart muscle or on nerve to heart. Death may occur from complications as nephritis, pneumonia, brain hemorrhage.

Digestive Complications: Digestive symptoms: Fur coated tongue, accumulation on teeth, bad breath, vomiting, pain stomach, bowel trouble. Accumulation of gas a bad symptom. To get rid of gas, change food. Use albumen water in place of milk. Give patient enema of warm water with a little turpentine added. Hot applications on abdomen. Do not resort to colon tube until necessary.

HEMORRHAGE: Not alarming in slight cases. 5% (2 or 3 weeks).

EVIDENCES: Blood in stools. Black, tarry stools of sticky consistency not alarming. Bright red blood in stool much more alarming. Pulse gets more rapid and thready.

LARGE COPIOUS HEMORRHAGE: Temperature drops to normal or near. Pulse gets very rapid and thready. Cold and clammy over abdomen. Stool mostly pure blood. Collapse with perhaps delirium. Due to erosion of some vessel in bowel wall. If patient does not die as result, improved condition follows from riddance of system of toxins. Pulse back by day after hemorrhage.

BOWEL PERFORATION: Severe pain in abdomen near ileum. Perforation usually fatal, cause of 4 or 5% of deaths. Sets up peritonitis by toxins escaping into peritoneum. Pus in peritoneal sac. Usually occurs in 2nd or 3rd weeks. Patient usually dies 20 to 30 hours after perforation.

Symptoms of Peritonitis: (Time and severity of attack aids in diagnosis). Drop of temperature: Distention of abdomen with gas. Rapid pulse, vomiting, clearing up of typhoid state, pain in side, patient very weak.

TREATMENT: Nothing but quiet. Relieve from gas by proper feeding and use of colon tube. Apply cold to abdomen.

Condition of Stools: First week—constipation. Second week—diarrhea. Very offensive, liquid, greenish color, copious in proportion to amount patient is eating.

Complications with Other Diseases: **LOBAR PNEUMONIA:** Occurs late in the disease. Physical signs—cough, spitting of blood, pleurisy, rapid respiration, consolidation as observed by percussion. Usually occurs by some error as cold bath, etc. Catarrh of upper air passages, bronchitis due to toxic conditions lowering resistance.

MALARIA—Sectional.

ENDOCARDITIS—Heart valves affected and weakened.

NEPHRITIS—Common in acute disease, but less so in typhoid. Prognosis good unless nephritis becomes chronic. Acute, diffuse most common kind.

Enlargement of liver.

CYSTITIS—Inflammation of the bladder. Frequent micturition—mucous and often pus.

TREATMENT: Rest. Spinal treatment, lumbar and sacral. Irrigate with boric acid.

PHLEBITIS—Inflammation of vein, leads to Thrombus, mostly in femoral vein—swelling and pain.

HEMORRHAGE—May be cause of death. 5%. May be copious or if less may continue for several days.

Peritonitis results in death if rupturing bowel, allowing escape of pus into peritoneal cavity. In circumscribed peritonitis, recovery the rule. In perforation, patient lives only a few hours after perforation.

Differential Diagnosis: **MILIARY T. B.:** Never primary. Usually secondary to chronic bone disease. Rapid respiration.

MALARIA: Chills in malaria. Enlarged spleen.

SEPSIS: Pus in some organ, terrible chills due to the toxins, variable pulse, usually rapid.

MENINGITIS: Intense headache not relieved by pressure. Retraction of head, scaphoid abdomen, retraction of feet, peculiar cry. No typhoid state.

Treatment: Self limited disease. About 2-3 get well without doctor.

PROPHYLACTIC: Necessary for the physician to understand the nature, etc., of the disease. Stools should be disinfected (lime, carbolic etc.) Bathing. Washing of hands with antiseptic solution. Bed clothing changed and disinfected in carbolic water—1% solution.

GENERAL: No specific treatment either medical or osteopathic. Hygienic treatment very important; good nursing, comfortable bed, daily baths, good air. Increase resistance of patient by spinal treatment plus care. In feeding, neither starve nor over-feed. Regulate according to patient's digestion of food. Give liquid food only and keep up for ten days after temperature becomes normal.

MILK—Full, fresh, kept clean in a clean refrigerator. Butter-milk. Six ounces of milk every three hours. Possibly eight. One half to one ounce of lime water in milk. If milk does not digest lessen amount and reduce strength. If milk cannot be taken, substitute ablumen water (white of one egg in a glass of water).

WATER—One and a half to two quarts every twenty four hours.

FRUIT JUICE—NONE—Laughlin.

During convalescence, chicken broth with fat skimmed off. Beef juice. Cook beef over coals. Chop and express juice. Danger here of gas.

Hydrotherapy: Brand method. Daily or twice daily, a tub bath at 70 degrees. Patient lifted from bed and placed in tub for 10 to 15 minutes. Then give brisk rub. Lowers temperature about three degrees, stimulates skin and kidneys. Patient becomes more comfortable.

MODIFICATION—Sponge with cold water. If temperature runs high, run piece of ice in cheesecloth over body, followed by brisk rub. Enema good, not more than once a day. If diarrhea, not advisable. Keep patient in bed. Use bed pan.

Osteopathic Treatment: PRINCIPLE—Treat to increase resistance of patient. During first week, headache gives evidence of toxemia. Treatment giving temporary relief from headache (half day or so) will increase resistance. Sitting on bed near head, manipulate trapezius muscle. Press, lift up and gently manipulate. Then work up toward neck. DO NOT SNAP AND

POP. Give firm, deep pressure just behind transverse processes. Get deeply to ligaments. Spring neck. Treatment lessens temperature and relieves headache. To treat spine, have patient lie on side—unless too sick, hemorrhage, etc. Place one hand on shoulder, loosen with other. Same with hand on pelvic bone. With elbows, one on shoulder and one on pelvis, loosen lumbar region with both hands.

EFFECTS: Increase in resistance, in kidney action and in bowel action.

Treatment in Complication: **HEMORRHAGE:** Alarming symptom. More patients die from the prolonged, smaller hemorrhage. Quiet and treatment to quiet the nervous system. Do not move patient but relax muscles 15 minutes on either side. Normal salt solution. 6% in sterile water will increase pulse. Elevate extremities. Heat applied to extremities to equalize circulation.

Convalescence: Keep patient quiet in bed most of the time after temperature runs normal. Good spinal treatment for 10 days. Neuritis as a complication, rare, but possible.

Typhoid Spine: Comes on some weeks after the disease. Begins as slight curvature, but may develop severe lateral curvature, inflammation and pain.

CAUSE—Infection of bone and articulation with *B. typhosus*.

Tuberculosis.

An infectious disease, seldom acute, caused by the tubercle bacillus (discovered by Koch) and characterized by toxic symptoms and pathological conditions. Not called contagious. Old disease recognized for centuries, but not known as *T. B.*

Causes: **EXCITING:** Always specific bacillus. Enters body principally through respiratory tract. May enter through lymph stream or digestive tract. Bacillus lives outside human body for some time but does not proliferate. May remain virulent for months. When entering body, colonize and proliferate causing toxins. Sunlight, heat and antiseptics fatal to it.

Spread of T. B.: Greatest danger from pulmonary because in other forms no method by which bacillus is expelled from body. Sputum dries and gets into air. *T. B.* and pneumonia, most common diseases with both man and animals. Less *T. B.* in high, dry climate. Less in cold climates than in tropical and temperate.

Possible Parts Infected: Bacillus enters mainly through respiratory tract. May not pass nose or throat. May enter lymph system in throat. May produce local disease in lymph tissue of throat. May set up focus in pleura or may enter lung tissue without passing through blood stream. May be carried through blood stream as in osseous lesions. May be infection through digestive tract but not common. May be inoculated and develop at seat of inoculation.

Predisposing Causes: Inherited tendency, not disease but lack of resistance to it.

CONGENITAL: Only a few cases on record. Infection thru placenta, usually in liver. Theory advanced of infection thru spermatazoa not good. Also theory of bacillus latent in body several years after birth not tenable. In children, bones or glands affected.

ENVIRONMENT: Individuals living out of doors contract disease less easily because more resistant and in less contact with bacillus. Sunlight disinfectant.

OCCUPATION: Indoor workers more susceptible. Uncommon among miners, possibly because of dampness.

RACES: Certain races more susceptible. Negroes, Jews, Irish and Indians.

AGE: Infants usually escape entirely until second year. 2 to 10 or 15 glandular or osseous; after 15, pulmonary; after 40, disease rare.

TRAUMA—predisposing; especially to osseous; to a lesser degree to pulmonary. Throat disease—glandular. Diabetes, Bright's Disease and rheumatoid arthritis—pulmonary.

Miliary T. B.

Acute form of tuberculosis characterized by rather rapid onset, general toxic symptoms and appearance in all parts of body of minute tubercles. Exceedingly rare form. (Tubercles gray and hard.)

Cause: Never primary. Most cases develop from small, hidden lesions which produce no symptoms.

Mode of Infection: Tubercle breaks down and bacilli are carried by blood stream to every part of the body. Do not proliferate in blood stream but come into contact with all parts. Danger in treating with manipulation lesions as in Pott's disease.

Types: TYPHOID, common and resembles typhoid fever.

MENINGEAL, involvement of meninges., RESPIRATORY, lungs especially attacked and principal symptoms referred to lung.

Symptoms of Typhoid Type: Disease comes on suddenly with chill or chilly sensation followed by temperature. Temperature goes up rather early and high (103 to 106). Rise in temperature, differential point between typhoid and miliary T. B. Face flushed, eyes blaze like typhoid in remitting temperature 3 or 4 degrees remittance. Even intermittant. Usually down in morning, possibly subnormal; high in evening. Patient very toxic, sweats a great deal. May be marked remission for few days. Disease invariably fatal.

CIRCULATORY SYMPTOMS: Fast, weak pulse, never dicrotic.

RESPIRATORY SYMPTOMS: May not be especially active in lung. No special lung symptoms as in pulmonary. May be rales, due to bronchitis. Difficult breathing and rapid respiration due to toxemia rather than to lung involvement, toxemia stimulating respiratory center.

NERVOUS SYMPTOMS: No initial headache as in typhoid. Delerium of a milder type than in typhoid. Nervous symptoms dependent upon location of disease. Do not have muscular tremor or inco-ordination.

Symptoms in Meningeal Type: In meningeal involvement, headache of peculiar type not relieved on pressure. Legs drawn up, scaphoid abdomen, peculiar cry, unconsciousness and other symptoms of meningitis.

In respiratory type, an old lesion in lung. Slight irritating cough. Differentiation from pulmonary type. In latter, no acute illness in miliary sudden attack and prostration, delerium and extreme toxemia.

Treatment: No satisfactory treatment except to relieve symptoms. System so overwhelmed with disease, fatal termination usually within three weeks.

Pulmonary T. B.

Types: ACUTE—Exacerbation of the chronic form.

CHRONIC—Most common.

Infection bronchial tubes or air spaces, extends into lung tissue. Inflammation, formation of tubercle, coalescence of number of small tubercles into large tubercle. Breaking down of tubercle or falling off ultimately terminating in scar tissue if death does not result. Disease extends through lymph channel.

Causes: EXCITING: Bacillus. Malnutrition causes culture medium.

PREDISPOSING: Osteopathic lesion (relation that of lessened resistance) flat upper dorsal, rotation of any one or more ribs from 1st to 7th or 8th. Injury to thorax, deformity of thorax. All unhygienic conditions in life, as lack of air, bad food, loss of appetite, and surroundings.

Symptoms: RESPIRATORY: Cough particularly in the morning especially marked where larynx is involved; more or less sputum which is to a certain extent exudate produced by proliferation of bacillus plus inflammation exudate from mucus lining. With mixed infection, pus present. Bacillus always present.

LUNG HEMORRHAGE: Serious symptom and often first. Usually slow, bloody sputum rather than pure blood. Lung hemorrhage in 99 cases out of 100 means T. B.

Differentiation: Blood from lung, frothy and alkaline; blood from stomach contains no air and is acid. Location of hemorrhage is determined by moist rales. Difficult breathing symptomatic, rapid and irregular. Focus of incipient infection may exist six months with no symptoms showing.

Pain Symptoms: In many cases, practically no pain. Pain comes from involvement of pleura. In case of chronic pleurisy, practically all cases indicate T. B. and pleural involvement.

Toxic Symptoms: Fever, sweating, loss of weight, particularly after loss of appetite.

Physical Signs: Inspection. Nothing early. In advanced cases, skin not good color, flat chested, poorly nourished general condition, rapid breathing, lack of expansion. If there are cavities of any size, depression of ribs (slight) 2 or 3 ribs may be involved. Rales limited to apex.

PALPATION: Confirms knowledge gained by inspection.

PERCUSSION: In apex, if consolidation exists, though slight cracked pot sound. In lower part of lung, small foci not usually found in percussion. Rales limited to apex.

Auscultation: Constant presence of moist rales. Rales may not be determined on ordinary breathing, but at the end of a deep inspiration and at end of a complete expiration.

X-Ray: In advanced cases, X-ray picture of considerable value. In picture, normal shows hazy shadow. Tubercle, darker shadow. Cavities, not even slight shadows. Abscess, darker shadow.

Acute Pulmonic Phthisis.

Chronic disease becomes especially active, spreading over entire lung through lymph channel. Lesion may become very active through overwork, other diseases, etc. Lung is suddenly flooded with septic material thru lymph and blood, but principally former. Comes on with chill and temperature. Consolidation occurs. Cough and sputum. Smaller tubercules coalesce forming larger ones.

Differentiation between Unresolved Pneumonia and Acute Pul. Phthisis: Patient after 3 or 4 weeks may get up. Consolidated lung collapses. Ribs collapse. Termination, fatal. Examination of sputum reveals tubercle. Aspiration brings brown, watery fluid.

Complications: RESPIRATORY, NERVOUS AND CIRCULATORY—Really symptoms.

DIGESTIVE—Coated tongue, bad breath, constipation, "Appetite patient's best friend." Dr. Geo.

Amyloid Diseases.

Form of degeneration occurring in spleen, liver and kidney. In kidney gives characteristic symptoms of large amount of urine plus large amount of albumen. Usually fatal.

Tuberculosis of Bones and Joints.

Bones not commonly affected except near joints. Joints affected in order—Hip (acetabulum or femur, epiphisis). Spine, D. C. L. Knee, end of either bone. Ankle. Shoulder.

Joint T. B.

Confined to children (3 to 10 or 15). Bones less resistant and general resistance low.

Causes: PREDISPOSING: Injury. Follows not after severe injury, but after minor where there is not enough inflammatory process to prevent infection.

EXCITING: Infection. Carried thru lymph stream from throat to point of injury where it proliferates and sets up infection.

Diagnosis: Very important because manipulation absolutely non-indicated. Aim of treatment, to increase resistance and check infection. Later deformity may be corrected.

Symptoms: (Hip-joint disease illustrative of all.) Usually chronic. Pain in knee or hip, first manifestation.

PHYSICAL SIGNS: Distinct hip limp. Lessened flexion. Lessened rotation.

Pressing knee to table, body will be raised from table, showing a limitation of motion. Limb appears too long, 0.5 to 2 inches—due to pelvic twist. Lameness comes on slowly. Patient may be able to walk a year as disease develops. "Osteotic cry"—crying out at night, symptomatic. Repeated from 6 to 56 times per night. Pain in knee is referred. Physical signs vary with progress of disease.

FIRST STAGE: Lengthening of limb, eversion of foot, flexion, limitation of motion particularly adduction. Hip limp—affected limb kept ahead.

SECOND STAGE: Deformity does not come unless disease reaches surface. Leg becomes short as bone breaks down. Hip becomes prominent. Foot inverted flexion.

PATHOLOGICAL DISLOCATION: Femur passed up, joint destroyed.

Bone T. B.

Usually primary. Infection most often in epiphysis, but may be elsewhere—(usually thru lymph channels from air passages.) T. B. never attacks less cancellous portions of bone. Knee and hip also more apt to become infected because more liable to injury. Bone T. B. seldom acute—almost always chronic.

Do not mistake Hip Disease for Obturator Dislocation.

Dislocation occurs suddenly. T. B. slowly.

Symptoms: Pain at first mostly in knee, afterward most pain in knee. Osteotic cry due to motion made possible thru relaxation of muscles in sleep.

TEMPERATURE—No rule about temperature. In simple, unmixed 98 2-5 to 99 2-5 or 100. If allowed to run around injuring hip, temperature may run to 103.

Differentiation: Bone T. B., chronic, lasting from 1 year to 7 or 8.

OSTEOMYELITIS. Infection in bone marrow, usually with staph. and extending into bone. Is characterized by pain and results in untreated cases in deformity. Sloughing of bone is characteristic. Treatment—rest. Acute, but there is no history of disease.

POST. INFECTIOUS ARTHRITIS. Following typhoid, pneumonia or scarlet fever. Comes on during period of convalescence. Result may be no deformity, but usually there is destruction of bone and tissue.

Treatment: THREE STAGES: 1. Lengthening of limb—so long as bone retains outline. 2. Breaking down of bone—stage between long leg and short. 3. Short limb, high trochanter.

Same treatment throughout all three stages. **Do not Attempt to get motion. Do not manipulate.** Manipulation of tissue about joint is permissible. First principle of treatment is rest. Manipulate body elsewhere—spinal and abdominal treatment to increase general health. Take child off lame leg by use of crutches. Better still to put to bed with weight on foot. Recovery quicker thus—say 10 weeks. Apply traction always in the direction of the deformity. In active cases, all flexion can be gotten rid of. In old, quiet, chronic cases, operation is necessary to break up fibrous tissue.

Apply weight of one pound per year. Put traction on upper part of leg with pillow under flexion. When flexion is gotten rid of, apply traction on lower part of leg with leg straight. Keep traction up so long as inflammation remains in hip. In getting rid of flexion, lower pulley a little at a time. Traction will cause shortening of long leg because reducing inflammation which is the cause of the lengthening.

When child seems in good shape, take off traction for a few days. Then put on a plaster cast. Put child on crutches. Build up shoe. In three months, take off cast. If it seems all right, keep child on crutches with high shoe without cast. If not satisfied, put on another cast. Next step to take off high shoe but keep to crutches. Manipulate gently at first. If inflammation is not excited, make it more vigorous.

In older children, long extension splint may be used instead of cast or following it.

Disappearance of temperature, sign of improvement, but not of complete recovery.

Complications: Chronic hip abscess. If abscess does not open spontaneously it is best to open. Do this under sterile conditions so that if there is not already infection there will be none. Not wise to try to keep child in bed with traction if abscess is very bad. Keep abscess washed and try to keep up nutrition.

Pott's Disease.

Disease begins in body₇ of vertebra, resulting in deformity of spine. First physical sign—knuckle on back. Disease begins in a single vertebra and destroys it before attacking another.

6-7-8 Dorsal first. Lumbar next. Cervical least often. Angular deformity develops slowly. Limitation of motion at point of deformity.

POSTURE: Little motion in back. Sag at one side. One shoulder high. In stooping, back is kept straight. Bending occurs in hips. Some temperature. Pain in back and abdomen.

Differentiation: 1. T. B. Common form of curvature, angular. Most often in dorsal and always posterior. 2. Rheumatoid arthritis—Characterized by poor nutrition to bone. First general stiffness of spine, usually characterized by general posterior curvature. Occurs most often in young men (spondylitis deformans) 3. Osteomalacia—Due to softening of the bone. Rare condition. Not extreme limitation of motion as in T. B. because there is no fibrous tissue formation. Very little pain. 4. Typhoid spine, following typhoid fever. General posterior and lateral curvature. Possible to overcome with treatments if gotten early.

Manipulations: Tuberculosis of bone—None. Spondylitis deformans—Careful. Osteomalacia—Careful. Simple lateral curvature—Much.

Treatment: Several methods. 1. Treat rest of spine. Have patient lie down most of the time. Not good treatment as a rule. 2. Fixation by cast. Plaster cast not much good if curvature lies as high or above 7th dorsal. In these cases, jury mast necessary. Application of cast.—Suspend child by neck to take out curvature. Use Whitman's frame. Have assistants stretch patient. Reduce deformity by pressure. Then put on cast. Cast never worn more than two months without change. After that use some support as leather jacket. Manipulate very gently if at all.

Common Complications of Pott's Disease: PARALYSIS: Compression myelitis. Characterized by spastic condition of legs. In serious conditions, transverse myelitis produces loss of sensation and motion.

TREATMENT: Put patient to bed and treat very little if disease is active. When patient gets up put on support. If quiet, more treatment is possible.

Abscesses: External abscesses. Psoas abscess. If due to tubercular exudate only, may be very large, but cause very little trouble. If due to mixed infection, may cause a great deal of trouble.

Chronic Fibroid: Acute T. B. General Miliary.

Pulmonary T. B.

One of the first principles of treatment is rest. A mistake to rough it or to take too much exercise.

Stages: **INCIPIENT:** Beginning often not recognized by patient. **SECOND STAGE:** More marked symptoms. **ADVANCED STAGE:** Marked loss of weight. Marked temperature night sweats. Due to mixed infection pus germs.

Rest does not necessarily mean rest in bed. Patient running a temperature should go to bed and stay until temperature becomes near to normal. Have bed out of doors (as a tent). Advantage in sanitarium. Where patient is at home, arrange out of door sleeping room with screen on sides and curtain of tent cloth for protection against weather.

Three Main Lines of Treatment: Rest; Fresh air; Food.

Disease is a local infection, healed by being walled off. Advantage of treatment is increase or resistance. Treatment (general care) should be kept up at least six months after disease seems cured.

Osteopathic Treatment: Vigorous treatment not good. In incipient T. B. cause often lesion of one of first three ribs or lesion in upper dorsal. Lesions predisposing factor. Carefully correct lesions. Too severe treatment may produce hemorrhage.

Lesions may not be specific. With no specific lesions, gentle general manipulations beneficial thru increase of resistance. In no way stir up lesion in lung.

Diet: Overcome disease by increasing nutrition and taking on weight. Give as much food as can be taken care of. Dr. Laughlin does not use forced feeding. Give good nourishing food three times daily with a glass of milk between meals and at retiring. Care at the beginning not to make food amounts too large.

Hygiene: Fresh air, sunlight, temperature at least 65 degrees. Careful about draughts. A good plan to take out window and substitute canvas.

Prophylaxis: Do not allow sputum to dry. Use sputum cups (paper).

Complications: Hemorrhage. Rest in bed, resist coughing. Gentle cervical and upper dorsal treatment. Ice pack questionable. To improve appetite, general treatment plus rest in bed. To reduce high temperature, rest in bed.

Tuberculin: Not advised even by its advocates in advanced cases. Of no value in cases of mixed infection. Contra-indicated.

If enough be given in testing to produce temperature, a bad effect on patient results.

Influenza (Grippe)

INFLUENZA VERA—Epidemic due to the bacillus of Pfeiffer.

CATARRHIAL FEVER: Less contagious.

Causes: PREDISPOSING: Lesions lessening resistance, particularly cervical and upper dorsal. Cold and exposure (spring and winter). Overwork. Bad air.

Classification of Types is made according to symptom causes the same. Nervous; Respiratory; Gastric. In all varieties, some of all symptoms.

Symptoms: Sudden onset, nervousness, chill or chilly sensation. Temperature 102 to 105 in a few hours. Headache, flushed face, pain all over body, back and legs especially. (bone-ache). Pain is due to toxins. Insomnia. May be delirium.

NERVOUS TYPE: Nervous symptoms predominate.

RESPIRATORY TYPE: Principal symptoms in upper air passages. Symptoms probably milder than in nervous type. Marked coryza, difficult breathing, cough, pleurisy.

GASTRIC TYPE. Comes on suddenly. Toxic symptoms, headache, backache, nervous tension, nausea, vomiting and gastrointestinal disturbances. Coated tongue, foul breath, constipation or diarrhea. Pain in joint not sharp, shooting but dull ache.

Differentiation: GRIPPE: Sudden onset. Backache, etc. (Smallpox, only other disease showing backache). Sickest at start. In respiratory type, some cold before trouble comes on. Chief symptoms, coryza. Toxic symptoms, more marked and early.

TYPHOID. Less precipitate in onset. (2 or 3 days in coming) No bone ache. Step-like temperature.

PNEUMONIA: Temp. cough, pain in side, red hepatization about third day. Subsidence of temp. by crisis. In pneumonia, no preceding cold. Distinct chill. Patient does not feel the worst for several days.

Complications: Most deaths are due to a complication pneumonia, coming with decreased resistance. Death without complication, only in old people or those who are debilitated.

Grippe does more damage to nervous system than any other single disease because of toxins. 1. Pneumonia. 2. Injury to nervous system. 3. Heart disturbance.

NOTE: Most heart trouble (organic) due to infectious diseases and can largely be prevented by proper care of infectious disease.

In grippe, patient often left with valvular lesion, due to endocarditis. Patient should be kept quiet in bed and treated especially for heart—left ribs 1 to 7.—corrections made where found. If patient is allowed to get up, leaky valve is likely to result. In any infectious disease, patient should be kept quiet in bed until completely well.

Osteopathic Treatment: Complications, not likely to develop under osteopathic treatment. Keep patient in bed until symptoms have disappeared. Treat at least twice per day. No specific lesion to be found. Spinal muscles, contracted and very tender. Cervical and dorsal subluxations usually found. Lumbar. A single vigorous treatment may break force of attack. Treatment, more vigorous than in typhoid or pneumonia.

Prognosis: Good in vigorous individuals. In older people, past middle life, produces severe shock to nervous system with succeeding nervous disturbances.

Mumps (Epidemic Paratititis)

An acute infection, characterized by temperature and swelling of the parotid gland.

Cause: Unknown infection. Latest theory that it is a general infection in the blood stream. Disease may be carried by third person. Incubation period 1 to 3 weeks.

Symptoms: Indisposition, slight temperature (101 to 102) swelling of parotid glands. Some pain in glands because of inflammation of duct, hence increased on chewing or eating of sour pickle producing flow of saliva thru inflamed ducts.

Complications: In adults. Usually unilateral. Three or four days after swelling appears in parotid glands, inflammation of testicle. Outcome, untreated may be atrophy.

Treatment of Mumps: Keep patient in bed. Give cervical and dorsal treatment, but do not treat gland. Treat in lumbar and sacral and keep in bed and orchitis will not develop. Use hot applications over glands.

If orchitis develops, treat with rest in bed, spinal and innominate treatment. Wear support and apply cold compresses to testicle.

Mastitis: Usually not serious.

Ovaritis: Rest and general treatment.

Dysentery.

Many forms. Two main classes most common.

Causes: EXCITING: Amœba. Bacillus of Shiga.

PREDISPOSING: Exposure, fatigue, overwork, intemperance, bad food, bad water, meat in state of decomposition, rotten fruits. Both forms of acute run a variable course of a month or so and may become chronic.

Catarrhal Form: Due to inflammation of the colon. Shows increased peristalsis and exudate. Chronic dysentery may develop. Is due to some infection.

Dysentery in Children: Higher mortality than in any other children's disease. Cases occur most often in summer because of greater number of bacteria. Bacteria do not allow milk to digest. Decomposition of butter fat produces a toxin. Lowered resistance makes gastric attack of germ possible.

Symptoms: Temperature, liquid stools afterward bloody. Death is from effect of toxins on nervous system. Recovery is brought about thru the creation of enough antibodies to offset toxins. Occurs mostly in bottle-fed babies. Stools contain mucous and blood, may contain pus. Symptoms develop slowly. Little diarrhea for two or three days. Stools frequent, copious and full of mucous. Later more watery. Patient loses appetite extremities become cold, eyes sink into head. In a few days death.

PREDISPOSING: Other diseases as rickets. Formaldehyde in milk. Dirt in milk.

Treatment: Rest, diet, osteopathic treatment. No drug has much value. Morphine used to lessen peristalsis, and anti-septic to wash out colon.

Frequent stools are the effort of nature to get poison out of system.

REST: Very necessary, particularly if case is at all serious. Patient should lie quietly in bed, particularly infants and children. Keep warm, but with plenty of fresh air.

DIET: Castor oil may be well at very beginning, but never after inflammation begins.

Let everything the patient eats be as free as possible from bacteria. Sterile water in sterile glass. As a mouth wash, use listerine, glycerine and peroxide, equal parts. Fill a glass one-third and dilute with two thirds water.

In cases where the stools are watery, give as little water as possible.

Boil milk. In some cases, add small amount of flour. Feed sparingly, 1 to 2 oz. Some times advisable to keep food from patient for 24 hours. Egg albumen, albumen water. Before making, wash shell in sterile water and pick a little hole in shell letting out white.

After improvement—Toast, egg albumen, boiled a very little.

Osteopathic: Treatment principally in lumbar and dorsal regions of spine. Treatment consists of relaxing and adjusting. Deep pressure on 4th or 5th Lumbar, lifting up legs.

Enema: Use colon tube. Warm steril water. Object to wash mucous membrane clean of blood, fecal matter and mucus.

Antiseptics, questionable. If any, very mild. Tannic acid probably best. Carbolic and nitric acids, not good.

Headache.

Pain in the head. Usually a symptom of trouble elsewhere.

Causes: PREDISPOSING: Anything which will create toxins, viz, Eye strain (through fatigue toxins) catarrh, (toxins absorbed), Pelvic troubles, (toxins from irritation and contraction); alimentary canal disorders, (toxins absorbed); acute infections (toxins produced); also conditions which reduce resistance to nerves in head area, such as, cervical and dorsal lesions, malnutrition, neuro-pathic constitution, etc. EXCITING: Irritation to nerves of head. (Usually 5th and occipital). This is almost always done by toxins in blood stream. Headache is rarely caused by internal brain troubles.

Symptoms: Pain may be general or localized. The muscles of head and neck are contracted. The superficial nerves are swollen and can be palpated.

Treatment: Gentle but firm muscular treatment is essential, although it is only temporary. Correct cervical and dorsal lesions. Gently relax all occipital and facial muscles. Apply heat to extremities. Manipulate scalp and apply pressure in occipital region and on scalp but not long at a time. Apply cold to forehead if there is temperature, otherwise apply hot packs to back of neck and between shoulders. Between attacks give treatment to remove the cause.

Neuralgia.

Pain in fifth nerve.

Causes: PREDISPOSING: About the same as in headache. Also bad teeth. Old roots and shivers of bone in jaw may be a

cause. **EXCITING:** About the same as headache. (toxins, etc.)

Treatment: Give general treatment with especial attention to relaxing musculature around face. This is only temporary. It is usually necessary to improve entire nervous system before condition clears up entirely.

SYPHILIS AND GONORRHOEA.

NOTES FROM LECTURES BY DR. GEO. STILL.

Syphilis.

Syphilis may be inherited or acquired. The world is full of syphilis and gonorrhœa. 95% of the men in the cities are said to be infected. You may treat them for headache, rheumatism, malaria, etc., when the real disease is syphilis. The disease is generally acquired in illicit sexual congress, hence its earliest manifestations appear upon the genital organs, but any abraded surface of the body, if brought in contact with the spirochæta pallida, may give entrance to the infection. 10% of the cases are "accidental" and about 3% have been traced to unclean dental instruments, etc. The spirocheta's habitat is the blood stream. It travels around and attacks one tissue as readily as another, omitting no organ in the body. The weak spots are naturally the first to be attacked. A person may contract syphilis and never know it. 10% never have an eruption.

Symptoms of First Stage: (1) Usually you get symptoms in twenty-one days after inoculation. (2) The hard chancre is the primary lesions and occurs on site of infection. It is a small red papule which gradually enlarges and breaks in the center leaving a small ulcer which stands out and is sharply defined from the surrounding tissue. It has an ivory-like base, a slight purulent discharge, but is painless and does not itch. The surrounding glands harden and enlarge, but do not suppurate. This primary Chancre may stay three months, and is invariably followed in forty five days from its first appearance by secondaries.

Symptoms of Second Stage: (1) Cutaneous lesions, called Syphilides. They look more like boiled ham than anything else. They are symmetrical, occuring evenly on both sides of the body. "Copper Spots" are not diagnostic, although white spots on "niggers" are Syphilitic. (2) Mucus patches or condylomata lata about vulva, anus or mouth. The typical mucus patches look as if they had dropped ammonia on the mucus membranes.

(3) Constitutional symptoms, fever (often mistaken for malaria), sore throat, anemia, iritis, alopecia, (polka-dot hair cut), severe headaches, which may occur regularly at four o'clock every afternoon, and radiating muscular pains. (4) Arthritis. (5) Miscarriages in women, if frequent, are significant. The syphilides may last three years or only four or five months. They may clear up and a second crop may appear not lasting as long, then a third crop, and so on. After a period of months or years, tertiary lesions may appear, but by no means in all cases.

Symptoms in Third Stage: (1) Gummata, firm nodules which may appear in the brain, viscera, muscles, bones, etc. You may get the syphilides and gumma at the same time. (2) Rupia, scabby vesicles usually on the skin. The scabs form in layers like a pile of coins the top layer being the smaller. The Rupia and Gumma undergo fibroid transformation in the solid organs and produce puckering and deformity. In the skin they break down and ulcerate, leaving ugly sores which heal with difficulty. On the mucus membranes ulceration is followed by cicatrices and we have strictures, as in larynx, rectum, etc.

Treatment of Syphilis: Osteopathy, Hydrotherapy and Hygiene can combat this disease, just the same as any other infection. If you have to use drugs for typhoid fever, pneumonia, etc., you should for syphilis also. A well known syphilographer has remarked: "I can cure more syphilis with an acre of sunshine than with all the drugs in the world." Mercury is given by the M. D.'s first and then iodids to get rid of the mercury. Mercury causes salivation and is very poisonous. Iodids and bromides produce Acne, mental symptoms, etc. When the tissues have been eaten away, Plastic Surgery is indicated. Necrosed bone should be removed. You cannot treat A the same as B. Every case is different. If they have a bad eruption on the face they are probably not taking care of themselves. After a dose of Syphilis young men usually reform and settle down. Some get Syphilophobia from reading the patent medicine advertisements. Physicians should be very careful in examining gynecological cases. Rubber gloves may be used, or a drop of pure Lysol put on any abrasion for a few seconds and then washed off with water or alcohol. The initial chancre may be washed with weak Lysol twice a day, and the Mucus patches touched with potassium bichromate crystals once a week. The crystals burn and should not be used in the mouth. Wash off with water afterwards.

General Rules: (1) Observe ordinary rules of cleanliness. Should have a daily bath of warm tepid water and plenty of soap, followed by a cool shower. Syphilis is not aggravated by frequent bathing like eczema. (2) Daily exercise in the open air. (3) The teeth should be thoroughly gone over by a dentist and the teeth and tongue should be scrubbed daily. (4) Spray out the nose and throat daily with Dobell's solution (a teaspoonful in a third of a glass of water). Keep the skin and mucus membranes clean and they will not have Syphilides. (5) Any eye trouble should be looked after at once. (6) Elimination is very important. They should drink lots of water or milk. The more fluids ingested the more Spirocheta are washed out. Hydrotherapy is very good treatment, but excessive hot baths are good only in the early stages. (7) Instruct men not to smoke, as it irritates the mouth. (8) A history of alcoholism usually goes with Syphilis. They can use ale and beer, but not whiskey. They should not use coffee, tea, spices, etc., unless they are exercising a great deal. (9) A good general diet is indicated. (10) Treat the areas affected from the spine. They ought to take treatment for a year and a half after the disappearance of the last symptom. A basal headache can be treated every day with benefit.

Gonorrhœa.

Osler says "It is one of the most widespread and serious of infectious diseases."

Symptoms: (1) In the male, symptoms usually appear by the third day after exposure, first shown by a small scab on the end of the urethra. (2) He may attempt to urinate and find the urethra occluded. He peels the scab off and some white pus runs out and the passage of urine causes intense burning pains. (3) The discharge may run so fast that there will be a pint of pus in twenty-four hours, and it will probably not quit dripping for about a month. The first attack usually frightens the patient and he may get gonophobia. They usually buy on the recommendation of some friend a 25c syringe and some strong chemical like corrosive sublimate, carbolic acid, etc., and inject it into the urethra. This of itself is sufficient to cause a discharge. Anterior gonorrhœa is not serious, being a simple infection, but a posterior gonorrhœa is a very bad condition. The latter may follow absolute neglect or the use of injections, the pus being driven back and attacking the prostate, seminal vesicles, epididymis, testicles, etc. Usually

if the infection extends posteriorly, it is noticeable. The compressor urethrae muscle, ordinarily, will stop an injection but if force is used it will go clear through to the bladder.

Complications and Sequelæ: A man with an Acute Gonorrhœa is not likely to get an arthritis, but one with a chronic gleet is. Arthritis is the most damaging, disabling and serious of all the sequelæ. As a rule many joints are affected. It attacks certain joints which are rarely involved in acute rheumatism, viz: Sterno-clavicular, intervertebral, temporo-maxillary and sacro-iliac. The inflammation is often peri-articular and extends along the sheaths of the tendons. The disease is much more intractable than ordinary rheumatism, and relapses are extremely common. The treatment is no different than for any septic arthritis. (1) Perfect and absolute rest to the joint (2) Some recommend injecting a weak solution of formalin. Others, aspirating and draining the joint. (3) The best result will leave a stiff joint, so put it in the position that will give them the best results when stiff. (4) Osteopathic treatment, massage, rest, baking (or continued hot packs) will give best results. The trouble is when they feel all right they will use the game leg and then be troubled with a relapse. Scar tissue and deposits occur around the joint. Endocarditis is a frequent and serious resultant. Fever follows absorption of the toxin and the germ can be demonstrated in the blood. In women, some of the common resultants, by extension, are periurethral abscess, vaginitis, endocervicitis, abscess of Bartholini's glands, salpingitis, metritis, ovaritis, peritonitis, cystitis, etc. (The Gonococcus destroys the surface tissues and lives in the neighboring subcutaneous tissues. Scar tissue comes in and robs the organ of its function. Chordee, bending of the penis, may occur, due to tissue contraction. Rectal gonorrhœa may follow if the anal outlet is not protected. We have a lining of Columnar Epithelium there and the Gonococcus can take hold. Orchitis, prostatitis, conjunctivitis, abscesses of Cowper's glands, inguinal glands, etc., may result and require treatment.

Treatment: There are a million specifics for gonorrhœa, which proves that there is no real cure for it. Cases often get well without any treatment. On the average if a patient takes care of himself, he should be entirely free of the disease in one to two months. Posterior Gonorrhœa is a fight between the organism and the germs and the general tonic treatment is the best.

General Rules: (1) A dressing, or wad of cotton, etc., is necessary to catch the discharge; (2) They must wear a jock strap to support the testicles, which may get the size of two fists, even if the infection does not travel back. Wrapping the testicles in cotton and supporting them is essential, even with the patient in bed. Ice packs for a short time will relieve the pain in Orchitis to some extent. Guaiacol is used but burns and peels off the skin, and does not cure. If there is an abscess you have got to open it; the whole testicle may roll out with the pus. Sometimes chronic orchitis or chronic epididymitis is so severe that castration is necessary. (3) Stop the use of Alcohol, or restrict it and make them take it regularly. (4) If nervous, excessive smoking should be stricted. (5) No fried foods, no pepper nor spices, etc. Only a small amount of meat and stimulating food. The urethra is trying to contract down and erection will keep it irritated, so no sexually-stimulating foods, such as eggs and glandular meats, should be taken. Peas, beans, all fresh vegetables and fruits, water, milk, buttermilk, lemonade, etc., can be taken in excess. Every desire to urinate should be answered. (6) The mouth of the urethra should be kept oiled and padded with cotton. Change dressings frequently. Wash the genitals all over in hot water three times a day. This will tone up the vaso-motors as well. (7) Thoroughly oil the meatus every night, so discharge will not coagulate. (Gonorrhœal pus is very coaguable.) Patient should lie on belly, or in Sims position, while sleeping. (8) Cut out muscular exertion, athletics, etc. Should stay in bed a week if buboes or testicles are sore and enlarged. This will be hard to enforce, but it will save a stricture, etc., in later life. (9) Injection: If at the end of two months there is still a discharge and he wants something to inject, do not give anything to the patient, but inject Boric acid or some mild astringent yourself. Feel under the urethra and corpus spongiosum. If very sore at a certain point say 1 1-2 inches back, that is where the infection stopped. Grasp the penis above the point of tenderness between index finger and thumb and fill the urethra to that point with an astringent anti-septic. Leave it for two minutes in contact with the tissues and let it run out. It may burn a little. Do not let the fluid pass your fingers, as it will carry the pus further back. Of course, if the damage is already done, irrigating the bladder and urethra cannot possibly do any harm. A 2% solution of Ag NO₃ may then be used. Of course you cannot wash out the Seminal Vesicles.

Sinus pocularis, vasa efferentia, or Cowper's or Bartholini's glands, etc. (10) The prostate when infected has to be lanced through the rectum. Drainage is slow and it heals with difficulty. Try milking the prostate with two fingers inserted in rectum and you may cure it without lancing. The same treatment may suffice for vesiculitis. According to Byron Robinson, 90% of enlarged prostates are due to gonorrhœa. (11) **Osteopathic Treatment:** Treat acute cases once or twice a day; chronic cases three times a week. If they will follow your instructions you can cure them, if they do not follow directions drop the case. They will probably try a hundred different things recommended by friends. Treat the lumbar region and the innominates. Posterior innominates are common. Tenderness over the anterior superior spines and sacro-iliac joints is usually present. May be from muscular contracture! All cases of Gleet, stricture, etc., are gonorrhœal. Scars come about the second or fifth year after they have stopped using injections. They contract and cause stricture. Commonest locations for strictures are the end of the urethra above the fossa navicularis, in the membranous portion and in the neck of the bladder.

The Beer Test: (not recommended by Dr. Geo.) is to scarify the urethra with a strong astringent injection and have patient drink five or six quarts of beer. If dripping does not commence again, he is considered cured!

Posener's Three Glass Test is to have patient come to your office in the morning before urinating. Have him to pass say 100 c. c. urine into one glass. If the infection is confined to the urethra you should find long thread, urethral epithelium, leucocytes and pus. After "milking" the prostate, have him pass 100 c. c. into second glass. It should contain prostatic epithelium and pus if prostate is affected. Then, by emptying the bladder into the third glass you should get transitional epithelium and pus, etc., if the bladder is affected.

Urethral Ulcers, red and white patches, can sometimes be seen by using Endoscope and head mirror.

Gonorrhœal Conjunctivitis.

Gonorrhœal ophthalmia is one of the worst infections you run across. The eye may be destroyed even under good treatment. Always have consultation as you are going to have scars on the

Cornea or loss of the eye. It takes three to five days for the infection to show signs.

Treatment: (1) Continuous irrigation with boric acid; and take a medicine dropper and squirt in boric acid, witch hazel and tannic acid mixed. (2) Keep eyelids oiled with cocoa butter, etc. The pus is very sticky. (3) Both lids will swell away out. Use cold packs to reduce edema. (4) Protect the other eye with adhesives or celluloid eye mask. (5) Cervical and upper dorsal treatments will positively do them a lot of good.

MORE POINTERS ON SURGERY.

FROM LECTURES BY DR. GEORGE STILL.

Uses of Water.

The Cold Sponge Bath is (1) A tonic to the thermal centers and thus affects radiation, evaporation and perspiration; (2) Tonic to the kidneys; (3) Stimulates leucocytosis; (4) Stimulates the skin; (5) Tonic to the general nervous system and respiratory apparatus. The water should be about 60 degrees. Sponge part of the body at a time. Give one bath a day where indicated, and always after a sudden rise of temperature, collapse, coma, etc. Wonderful results follow immersions with continuous massage and friction, most of the time on the back. Dr. George gives a cold sponge and saline in collapse, and whiskey if they are used to it. In pneumonia, etc., every day the patient should be covered with blankets from head to foot and the windows opened and the air changed. You will never lose a case by giving them fresh air, but do not have a draft.

The Continuous Bath: In bad phlegmonous infections the continuous plain water bath is the best thing. Water can be used in ten ways (1) As a stimulant, in syncope, frostbite, typhoid, fever, new born, etc. (2) As a sedative, at about 100 F. (3) As a tonic to improve nutrition. (4) As a diuretic. (5) As a diaphoretic. (6) As an emetic. (7) As a purgative. (8) For the promotion of metabolism and elimination of retrograde products of faulty tissue change. (9) As an antiseptic. Irrigation with plain boiled water is universally preferred in surgical operations. (10) As an antipyretic. Tepid water is better than cold, as the latter increases metabolism and therefore heat.

Collapse.

Treatment for Collapse from any Cause: Dilating the rectum is the most effective method. It is physical and immediate. Strychnin and nitroglycerine take from 3 to 15 minutes to act.

Coma.

Different Forms of Coma: Coma is a cessation of the vital functions due to an effect on the brain by trauma, toxins, etc. (1) Alcoholic Coma: May be momentarily aroused. Sour breath due to gastritis (Drunkard's Stomach). Odor of alcohol. Stertorous breathing. (2) Opium Coma: Pinpoint pupils (unless Atrophine has also been used). Deeply comatose. Respirations and pulse slow. Face dusky and cyanotic. (3) Uremic Coma: Urinous and ammoniacal odor to breath. Swollen pallor of renal disease. (4) Diabetic Coma: Sweetish, fruity, or "overripe-apple" odor to breath. (5) Epilepsy: Bitten tongue. Foam on lips. Brief duration. (6) Hysterical Coma: Eyeballs persistently upturned. Never hurt themselves. General appearance characteristic. (7) Syncope: Pupils widely dilated. Absolute pallor. Respirations almost imperceptible. Brief duration. (8) Sunstroke: Occurs in hot weather. Excessive high temperature. Deep coma. (9) Apoplectic Coma: Profound. Lips are blown out and cheek flaps. Head and eyes may be turned persistently to one side. Limbs on one side may be more flaccid than others. Pupils are dilated and do not react to light. Pulse is full, strong, infrequent. Arteries are hard. (10) Gas Poisoning: Circumstances will indicate this type. (11) Knock out Drops (Chloral) used by thieves; the victim may be found with a depressed fracture or Concussion of the brain.

CHRONIC DISEASES

NOTES FROM LECTURES BY DR. GEO. LAUGHLIN.

DISEASES OF THE KIDNEY.

Acute Nephritis.

Inflammation a common disease of kidneys. Trouble comes on suddenly and death takes place in a short time. Chronic nephritis (early) may be cured.

Acute (diffuse) nephritis: An acute diffuse inflammation of the kidneys.

Causes: PREDISPOSING: Spinal lesions.

EXCITING: Toxins in system which attack kidney. Toxins are usually those accumulating from infectious diseases, especially from scarlet fever and diphtheria. Extensive eruption of the skin or severe burns. Cold or fatigue. Pregnancy—seven months on. Poisons.

Pathology: Kidneys may be somewhat swollen. Glomeruli and tubules show inflammation.

Symptoms: Sudden onset. Pain in back muscles. No temperature. Patient is weak. Anorexia. Puffiness below eyes and over face. Headache. Scanty urine, highly colored, high sp. gr. Albumen plenteous. Blood, epithelial and fat and other casts. Oedema of ankles, coated tongue, constipation.

Diagnosis: Consider history, symptoms, urinary findings.

Prognosis: Highly fatal disease. One third following scarlet fever die (M. D.) Good when treated osteopathically.

Treatment: Absolute rest in bed until albumen disappears, 3 or 4 weeks. Proper diet. Nothing but milk. No solid food until albumen entirely disappears. Keep warm. Relax spinal muscles. Spinal lesions—9th Dorsal to 2nd Lumbar. For oedema give sweat baths.

Chronic Parenchymatous Nephritis.

In which the parenchyma is involved. More common than interstitial.

Causes: PREDISPOSING: Spinal lesions (10, 11, 12).

EXCITING: Toxins; direct violence; poisons; age; sex. Interference with nerve supply brings about interference with blood supply. Muscles contracted. Slight rotation of one or more

vertebræ. Slight displacement of 12th rib. (Often find it up or down. Dr. L.)

Chronic nephritis many times follows acute nephritis when proper treatment is not carried out.

Poisons: turpentine, etc. Age: young or middle aged, 20 to 40. Sex: usually male.

Cardiac disease: Begins with valvular disease, hypertrophy and compensation. Finally the compensation breaks down and congestion of kidney follows—chronic parenchymatous nephritis. Any exhausting discharge such as an old abscess or tuberculosis discharge causing a continuous toxemia.

Symptoms: Chronic nephritis comes on gradually, sometimes so that the patient will not know that he has the trouble. Probably the first sign will be some puffiness noticed after rising in the morning. Headache later becomes an everyday symptom, through poor elimination causing toxemia. Retinitis or inflammation of the retina.

Urinary Findings: Urine reduced 1-2 to 1-3. Highly colored, red. Higher specific gravity, 10.25 to 10.30. Contains albumen — Numerous casts. granular casts chiefly.

Oedema of extremities, cavities, etc. Weakness. Anasarca due to one of two conditions—nephritis or cardiac disease with broken compensation.

Secondary anemia—reduction of erythrocytes. Very serious.

Pathology: Congestion, inflammation. Soft. Capsule easily pulled off. When cut, shows white or red areas, enlarged 2 or 3 times.

Death—May come from exhaustion or from some intercurrent disease.

Complications: Gangrene, sepsis, pneumonia.

Treatment: Remove abnormalities of spine. Rest in bed has tendency to relieve renal congestion. Diet (light). Liquid food. Cereals. Not more than one egg a day. Milk is the best diet, but the patient would probably tire of this so other things will have to be given. Keep bowels active. Give plenty of water. Continue 4 to 6 weeks.

Oedema: Cases of extensive œdema are usually the ones that end fatal. Give sweat baths daily to relieve kidneys, if patient is able to stand them. Dr. Laughlin has never limited the amount of drinking water. Cases of marked and extensive œdema might require it. Tap when œdema of peritoneal cavity

is extensive. (hydrops). Top 1-2 way between pubic bone and umbilicus. Have patient sitting on chair. Use hyperdermic with 4% cocaine. Cut 1-4 inch long through skin. Then put in trochar. May make 1-2 inch incision along shin bone to allow fluid to seep out.

Cerebral Hemorrhage: A very serious affair. Death may result within a short time from a large hemorrhage. Hemiplegia may result.

TO DETECT HEMORRHAGE: Note symptoms. Eyes will be fixed or crossed. Patient is usually in a sweat and experiences dyspnea, making a loud noise. If hemorrhage is severe, patient will be unconscious.

TREATMENT: Patient should be put on bed in a comfortable position. Extremities should be warm. Ice cap may be applied to head, using towel beneath it. Head must not be moved, but shoulder and neck muscles may be manipulated.

Chronic Interstitial Nephritis.

Always comes on slowly, often times patient having no warning. Always chronic and rarely do patients die from this disease alone. Inflammation of connective tissue framework of kidney. Always associated with arterio-sclerosis. Cardiac changes.

Causes: Autointoxication attacks the kidney and walls of the arteries. Seldom does this disease begin in persons under 40 years and never seen in those persons who lead easy going lives. Found in hard working men or those who lead fast lives. It is brought on by overeating, by taking too little exercise, by excessive use of alcohol, by certain poisons as lead, by certain diseases such as gout, diabetes (more than 2-10 of one per cent of sugar is abnormal in blood). Syphilis. Osteopathic lesions. Age—After 40 years. Usually men. Hereditary predisposition.

Pathology: Kidneys are small and hard and if capsule is torn off, it will take with it nodules of kidney substance. Kidney resists knife. Atrophy of glomeruli. There may be cysts.

Symptoms: Comes on very slowly. Patient may not know for some time that he has the trouble. Patient may be troubled with frequent micturition. Headache may be a prominent symptom and very severe.

CARDIAC CHANGES: Arteries are hard and contracted, causing an increased blood pressure. Hypertrophy of heart follows.

The second sound is accentuated. High blood pressure. May be cerebral hemorrhage.

URINARY FINDINGS: Amount may be increased. May be twice normal. Specific gravity is low. Amount of solids eliminated, low. Albumen and casts may or may not be found. Uremic convulsions similar to epileptic seizures. Retinitis is common. 15 to 20%. Cachexia.

NERVOUS COMPLICATIONS: Convulsions due to irritation of nerves. Coma due to toxemia. Insomnia.

Asthma.

Found also in connection with chronic parenchymatous nephritis, also in cardiac disease. When this condition comes on, the case is hopeless. "Constriction of muscles of bronchioles." In cardiac asthma, another cause is apparent. Congestion of lungs is brought on by the hypertrophied heart.

Digestive Disorders: Due to retained toxins.

Bronchitis: When patient is suffering from chronic bronchitis, it is usually a secondary trouble.

Oedema is uncommon. Anemia is rare a very serious condition.

Prognosis: Hard to say because of the chances of a hemorrhage or some intercurrent disease. Depends to a great extent upon the kind of a life the patient continues to live.

Treatment: As much rest as possible. Take things easier. Use no alcohol or tobacco. Live simple life.

Osteopathic Treatment: Ideal treatment. Quiet work and rest. Live out of doors as much as possible, but do not indulge in much exercise. Light diet. Regular treatment for a year or more.

FOR UREMIA: Sweat baths. Treatment to stimulate kidneys. REST.

Floating or Movable Kidney.

A condition (floating) in which the kidney is greatly displaced while in movable kidney, displacement is only slight.

Causes: Sex: Usually female. Age: About thirty and under. Usually right kidney and usually in thin neurotic women. Tone of abdominal muscles lost. Other supports drop out of the way. Frequent pregnancy is another cause, also injury.

Symptoms: May be none in some individuals. In others we find all kinds of symptoms: due to irritation and reflex or

twists in vessels. Nausea, vomiting, headache, pain in the side, nervousness. This difference in symptoms is due to difference in the strength of nervous systems. Dysmenorrhea interoptosis, dyspepsia, dilatation of stomach, vomiting, obstruction of pylorus, loss of muscle tone.

Diagnosis: Easy fatigue. Have patient on back with limbs flexed. Stand on opposite side. Place hand over 12th rib. Make strong pressure upward with right hand and downward with left. If movable, the kidney may be gotten between the two hands and we may be able to feel it move around, and feel its shape. On left side, we might mistake condition for a movable spleen. Examine neurotic women of middle years for a floating kidney. Crisis Deitls not so severe as gall stones or renal colic.

Treatment: Patient should rest. Should not be on her feet very much. Should be in bed 4 to 6 weeks. Lie on right side. Correct spinal lesions, usually to be found in these cases in the lower dorsal region—9th D. to 1st L. Treat thoroughly three times per week. In Deitls Crisis treat lumbar, lift up ribs, and apply heat. Try to keep the kidney in place. Use abdominal binder around abdomen and up to 9th rib. Often necessary to use pad just under ribs to keep kidney in place. Liberal diet is very important. Plenty of rich milk 2 or 3 quarts daily, if patient is able to take it. If possible, get the patient to gain weight. Otherwise the possibility of repair seems small. Those cases which do not respond to treatment should have surgical care. In most cases of surgical interference, the results are good.

Pyelitis.

Inflammation of the pelvis of the kidney. A common cause of death. Three ways of infection. Through blood stream; ascending infection; from urine in typhoid.

Through enlargement of prostate, urine is held in bladder. After some time a catheter has to be used and infection is carried into the bladder. This travels up the ureter. Through gonorrhoeal infection together, probably, with strep. or staphylococci. Through renal calculi. Through trauma, having become infected afterwards.

Types: Acute, chronic, catarrhal, suppurative, ulcerative.

Pathology: The pelvic wall becomes thickened and rough through inflammation. Usually only one kidney involved.

Symptoms: Feeling of weight, discomfort and pain in

kidney region. If pus is present, patient will show some fever. Septic temperature not regular. If depends upon the amount of pus. May be accompanied with chill and sweats. Pus is usually found in bad cases.

URINARY FINDINGS: Increase of urine. Pus in the urine. Pus collecting in the pelvis causes a tumor-like mass. Pain will be felt on the affected side. May be very severe. Ordinary pyelitis will not terminate fatally.

Complications: One of the most serious is pyelo-nephritis, a condition in which the infection works up into the substance of the kidney, causing inflammation resembling acute parenchymatous nephritis. Plugging of the ureter. Anuria, comes from plugging of the ureter or pus infection of kidney substance. Waxy kidney (amyloidosis) due to infection. Para-nephritic abscess.

Prognosis: Depends on age of patient. Involvement of one or both kidneys. Amount of pus. Whether or not pelvis alone is affected.

Treatment: Spinal treatment through relaxation and movement. Every other day. Work along ureter and apply heat. Give liquid diet. REST.

Renal Calculus.

Formation of renal stones in the pelvis of kidney through some abnormality of urine or affection of pelvis.

Causes: PREDISPOSING: Spinal abnormalities disturbing the innervation to the kidney. Age: About middle life. Sex: Mostly in men. Rigidity, trauma. Sedentary life: Found in well-fed, under-active men. Bacteria: If not readily excreted. Excess of uric acid: Are formed in an acid urine. (Renal calculi are hard while fresh gall stones are soft.)

Forms: (three) Sand, where the stones are very fine. Gravel, here the calculi are larger and irregular in shape. Smaller in size than a pencil. Large stones, too large to cause renal colic.

Symptoms: Varied. In some cases, there may be no symptoms at all. May get irritation of pelvis, ureter, bladder, or urethra—giving us renal colic. The pain accompanying colic is very severe, usually a dull heave pain felt in the side affected. Pus and blood in urine will help in making a diagnosis. X-ray will also help. Gall stones do not cast a shadow.

Symptoms: Come on suddenly with a few sharp stabs, becoming constant after a while. Some temperature may develop

and very profuse sweating will take place. Pain will be felt along ureter, bladder, urethra and even on inner side of limb. Often pain in testes or lobia. It is accompanied by frequent desire to micturate. Finally stone may pass and in 2 or 3 days patient may be up again. Stone may become lodged in ureter, causing complete obstruction. If pyelitis arises, we will get symptoms (urinary findings) of same; pus in urine.

Some times it is difficult to differentiate bladder stones from renal stones. Bladder stone is accompanied by frequent desire to micturate. By sounding the bladder, we can usually find any stones in the bladder.

Complications: Pyelitis, Hydronephrosis. Septic symptoms due to accumulation of pus in the pelvis. Prognosis bad.

Treatment: For calculi uncomplicated. Most of these cases are curable. Correct spinal lesions about kidney area. Osseous and ligamentous. Take plenty of exercise, if no complications. Be careful of diet. Avoid rich pastries and not too much meat. Drink plenty of water.

Treatment of Attack of Renal Colic: Pain is very severe and may last a couple of hours. Is accompanied by profuse sweating and referred pain. Thoroughly relax spinal muscles along kidney and lumbar areas. Application of heat. Towels as hot as possible. Change every few minutes. Keep it up for 10 or 15 minutes or until some relief is shown. Do NOT USE OPIATES.

Hydronephrosis:

A condition in which we have a retention of urine in the pelvis of the kidney. A large kidney is the result.

Cause: Some obstruction in the ureter, such as stone, inflammation, twist, congenital, ulcer, calculus, floating kidney, etc.

Symptoms: Usually unilateral. Symptoms may not be at all marked. All function may be carried on by the other kidney. A fluctuating tumor formation will usually be found in the kidney area. Easily mistaken for a large ovarian cyst. In most of our cases of hydronephrosis, there is an occasional emptying of the bladder and this will differentiate all cases cases of tumor-like formation. By the passing of the urine, the tumor becomes smaller so that its size varies from time to time. This condition is found only in hydronephrosis. Other conditions sometime present, but usually the kidney feels harder and not so movable.

Treatment: Manipulate along the course of the ureter will in some cases assist, but most of these cases are surgical in nature.

Perinephritic Abscess.

An abscess outside the kidney, usually behind the kidney, next to the posterior abdominal wall.

Causes: Bad nutrition. Usually accompanied by paralysis or found with it. Through incontinence, the bladder becomes infected.

The infection ascends, passes thru the kidney and attacks the posterior wall. It may come from the liver, also from disease of vertebra. Trauma.

Symptoms: These are usually overlooked because of the paralyzed condition of the patient. Septic symptoms will be evident due to pus. Swelling is seen on the affected side. Fever and chills accompany the condition and if the patient is not completely paralyzed, there will be pain in the region.

Treatment: Remove pus with aspiration needle. Manipulation, here, will do no good. Give general osteopathic treatment.

Cancer of Kidney.

Is either secondary or primary, rare.

Causes: Trauma, renal calculus, age.

Symptoms: Pain in kidney, urinary findings, loss of weight.

Complications: Pressure intereferes with colon, stricture of urethra, albumen and metastasis, embolism, and infarction which clog up tubes in kidney.

Treatment: Paliative.

Amyloid Degeneration.

This is always a secondary infection. Usually is accompanied by amyloid degeneration of spleen and liver.

Causes: Chronic ulcerative T. B., chronic syphillis, any chronic suppurative process.

Symptoms: Cachexia, Amount of urine is increased. Large amount of albumen. Clear with little sediment. sp. gr. normal.

Treatment: None because it is a symptom. Treat the cause. Treatment of infectious inflammation of joints, etc. Absolute rest to the part. Spinal treatment. Abdominal treatment. Fresh air, plenty of good food and water. It is well to

keep patient in bed for a while at least. Traction on the limb may be indicated. Keep part moist with dressing.

Albuminuria—Usually indicates some pathological condition of the kidney. Absence of albumen, a good indication.

DISEASES OF THE LIVER.

Liver Diseases.

No such thing as biliousness, torpid or sluggish liver. They are purely simple diseases of the gastro-intestinal tract.

Amyloid Liver.

A big, hard liver as opposed to the fatty liver. (A big soft liver, due to overeating.) No symptoms. Secondary. Most common in chronic syphilis, suppuration and T. B. There is enlargement of spleen. Large amount of urine gastro-intestinal disturbances. No jaundice. No obstruction to bile, no toxemia. No casts.

Treatment: Treat cause.

Congested Liver.

Most common finding. Because of excess of blood in the liver, many times the pulse beat can be counted, "pulsatory liver." In nine cases out of ten due to a weak heart. Quick change in size. May vary from day to day. Diagnosed by evidence of cardiac weakness in other parts of the body. Treat heart and circulation.

Cancer of the Liver.

Liver is bigger, harder and irregular. (Lumpy or nodular). In cancer we can get the largest condition of the liver. In most cases this is a secondary cancer. Usually primary is in stomach.

Symptoms: Pain in capsule, temperature, slow onset, rapid course, cachexia.

Treatment: None unless operation is indicated.

Atrophic Cirrhosis. (Portal)

Cirrhosis of the liver synonymous with sclerosis and induration. First change is degeneration of parenchyma which becomes necrotic, and is replaced by connective tissue. (Chronic interstitial hepatitis.) Shrinkage is irregular causing roughening of the surface of the liver. Sometimes called "hob-nail liver." Occurs chiefly in those cells which are closely associated with the portal capillaries. Tends to close up the lumen of the portal

vessels, finally blocking them. Does not affect hepatic vessels.

Causes: Lesions in spine. Age and sex male, after 40. Chronic alcoholism, or some other toxic substance in blood.

Symptoms: Congestion in the region drained by the portal vein. Oedema results. Very common to find blood in stools or to vomit blood. Diarrhea may prevail. Hemorrhoids are to be found. Superficial vessels of abdomen become very prominent. Loss of appetite, gastritis, enlarged spleen, ascites develops, intoxication, varicose veins around liver.

Treatment: Treat cause. Try to eliminate the poisons from the blood. Light diet and rest. When this is done, we have a practical cure. Of course the liver can not be anatomically restored, but the process is stopped.

Complications: Hemorrhage, cachexia, peritonitis, nephritis, cardiac depression and jaundice.

Hypertrophic Cirrhosis (Biliary).

An enlarged condition of the liver. This the uncommon condition. Rarely rough. No trouble with circulation. Jaundice is a symptom showing disturbance of the bile circulation. Liver is somewhat harder than normal. Usually the obstruction is caused by an inflammation of the bile ducts. (A cholangitis). A disease characterized by hyperplasia of connective tissue of the organ. The liver itself is as smooth as normal. Liver cells remain normal, but the connective tissue becomes greatly increased. Liver is to be felt projected below the costal wall.

Jaundice is to be recognized by the peculiar coloring of the skin and conjunctiva, by the presence of bile pigment in the urine and their absence in fecal material causing "clay-colored stools"—caused by the constriction of the bile ducts by connective tissue. The condition may run 10 to 15 years.

Causes: Spinal lesions, age 25-40 years, acute infection, ascending infection.

Seconday Cirrhosis (Biliary)

Usually find inflammation of bile tubes and bile stones. The inflammation may have been started by the bile stones. It gradually proceeds up the bile tubes and finally attacks the liver substance, causing degeneration, thickening, death and replacement by connective tissue. Liver will probably shrink to a certain extent.

Treatment: Would be referred to bile ducts and tend if possible to remove the stones. Good spinal treatment, treat liver, light diet. Liver will become hard in those areas affected. Jaundice will be present. Secondary cirrhosis may follow cardiac disease. Congestion comes on. Liver for a time is larger because of the increased amount of blood. Later thru the disturbed nutrition to the liver cells, the connective tissue proliferates and forms scar tissue. The liver, in consequence, gets smaller.

Classification: PRIMARY: a. Atrophic; b. Hypertrophic. SECONDARY: a. Biliary; b. Venous congestion.

In this condition, the size of the liver is variable and at many times a pulsation is felt.

Abscess of Liver.

If many, they are usually small. Accompanies pyemia. Condition of multiple abscess. Large abscess is very commonly found from lodgment of an embolus coming from a primary infection. Due to typhoid fever, bowel trouble, etc. As a rule, this condition requires surgical treatment. The pus must be removed. Usually by drainage. Give rest and nutritious diet.

Diagnosis: Etiology: Find primary pus infection. Temperature: Very irregular with intermittent chills, sweats and leucocytosis (due to sepsis.) Local findings (frequent). Big liver, enlarged spleen. Irregular. On palpation the mass feels elastic. Local pain and tenderness.

Acute Yellow Atrophy.

Very rare and we know very little about it. Cause is not known.

DIFFERENTIAL TABLE OF LIVER DISEASES

DISEASE CONDITION	SIZE OF LIVER	FEEL OF LIVER	SURFACE OF LIVER	SENSORY SYMPTOMS	EVIDENCES ELSEWHERE	PROBABLE CAUSE
Chronic Congestion or "Nutmeg"	Enlarged.	Firmer.	Smooth.	Tenderness and pain.	Bloek in Portal circulation, etc.	Weak Heart.
Cirrhosis or "Hobnail" Liver.	Enlarged first and then atrophied.	Hard.	Rough.	No sensory symptoms.	Ascites, etc.	History of alcohol in 90% of cases.
Cancer.	Very large.	Firm.	Nodular.	Constant pain and tenderness.	Cachexia, etc. Age over 40.	Secondary to Cancer elsewhere.
Abscess, Single or Multiple.	Enlarged usually upward.	Fluctuating usually right lobe.	Swollen.	Pain and tenderness.	Pyemia or Symptous of pus.	Secondary to Dysentery, Appendicitis.
Amyloid Degeneration.	Large.	Hard.	Smooth.	None.	Other organs involved also	T. B. joint, Syphilis, etc.
Fatty Degeneration.	Large.	Soft.	Smooth.	None.	Negative.	Toxins from infections, alcoholism, etc.

SYMPTOMS FROM GALL STONES

LOCATION OF BLOCK.	GALL BLADDER.	JAUNDICE	PAIN, ETC.	LIVER.	TEMPERATURE	OTHER SYMPTOMS.
Common Duct. Acute Biliary Colic.	Normal.	Present.	Exerciating.	Enlarged	Chills and sweats.	Nausea and vomiting (reflex).
Chronic block in Common Duct.	Normal.	Present.	Variable and indefinite.	Enlarged.	None.	None.
Hepatic Duct.	Normal.	Present.	Present.	Enlarged.	Chills and sweats	Nausea and vomiting (re.)
Cystic Duct.	Enlarged.	None.	Sudden and localized ten.	Normal.	None.	None.
Chronic Block in Cystic Duct.	Enlarged.	None.	Indefinite in region.	Normal.	None.	None.
Intermittent obstruction (Diverticulum of Vater).	Normal.	Intermittent.	Intermittent	Enlarged	Intermittent chills and sweats.	
Gall stones in bladder but no block.	Enlarged and stones perhaps could be felt.	None.	None.	Normal.	None.	None.

DISEASES OF THE GALL BLADDER AND TUBES.

(1) Inflammation, Simple, Suppurative. (2) Tumor or cancer. (3) Stones.

For whole alimentary tract, there is only one tumor of importance, i. e. cancer. Cancer shows an affinity for mucus membranes. Cancer is liable to occur especially in those places which are open to mechanical damage.

Diagnosis Cancer: Etiology (gall stones, most important Palpation. Cachexia.

Treatment: Surgical.

Cholecystitis (Inflammation of Gall Bladder)

Cause: EXCITING: Gall stones and bacterial. PREDISPOSING: Spinal lesions, overeating and sedentary habits.

Symptoms: If not severe no symptoms. In severe cases nearly always pain especially upon pressure upon ninth rib. Attacks of colic, temperature, variable depending upon severity of disease. Chills and sweats. Inflammation of ducts (due to pus).

Treatment: Rest in bed. Apply heat. Relax muscles of back and stomach. Correct spinal and rib lesions. Be careful about manipulating gall bladder. Surgical if septic. Keep in bed for several weeks. Light diet.

Colangitis (Obstruction of Common Bile Duct.)**Cause:** Same as above.**Symptoms:** Same as above.**Treatment:** Same as above.**Diagnosis** (gall stones): Probably preceded by inflammation. Gall stones may incite suppurative inflammation and cancer. Simple inflammation may occur in the earlier part of life. The other conditions come on later.

Jaundice accompanies simple inflammations. The lumen of the smaller tubes becomes blocked from thickening. Symptoms of gastritis may also be present bringing on the inflammation of the gall ducts.

Gall Stones.

Very common. Are found in 25 per cent of persons over 60 years of age at autopsy. Due to some obstruction of cystic or common bile duct. These cases of gall stones are usually accompanied by some stomach trouble such as gastritis. Over eating may be a factor. May be caused by some infection ascending up the common bile duct from the duodenum. Spinal lesions. Sedentary habits, over eating.

Symptoms: Patient may show symptoms and may not even know that he has the trouble. Symptoms are usually those accompanying the passage of the stones. Sometimes there is temperature and chills. Pains are usually not so harsh as those of renal stones because of the different character of the stones. It is softer and more or less covered with a slimy substance.**Sex:** Usually women after thirty.

Jaundice occurs only in a small percentage of these cases. Gastritis and constipation are usually symptoms. Only positive diagnosis is the finding of stones in the feces.

Complications: Cancer of bladder or passages is a serious complication of the bile stones. Pus infection is also a serious symptom. (Most common and most serious). Abscess may get very large. Complete obstruction of bile duct. Elasticity of walls of duct is lessened because of their thickened condition following inflammation. May develop fistula.**Differential Diagnosis:** 1. Renal and hepatic colic. Stones in feces in hepatic colic. Pain is more marked in renal and is accompanied by frequent desire to urinate. There is also a referred pain to inner side of thigh, testicle or labia. Jaundice and gastritis may accompany hepatic colic.

2. Appendicitis and hepatic colic. In appendicitis, the pain is usually lower than in hepatic colic. Both come on suddenly. The pain of hepatic colic lasts for a few hours, while that of appendicitis usually lasts 2 or 3 days.

A temperature always accompanies appendicitis, while in hepatic colic it lasts only the length of the seizure.

3. Acute gastritis and hepatic colic: A difficult matter. Nausea and vomiting may accompany both, but hepatic colic may be recognized by the passage of the stones.

Prognosis: Depends upon the complication. Good if there is no suppuration, infection or acute pancreatitis.

Treatment: For relieving hepatic colic: Loosen spinal muscles. May have to treat for an hour or so. Use hot applications over spine and liver. The Old Doctor says we can usually palpate the stone and assist its passage. Curative treatment must be given between attacks. Some lesion will be found in the lower Dorsal region from 5 to 12. Treat if possible three times per week—corrective treatment. Take care of diet and do not let patient overeat. This brings on congestion of the liver which favors gall stones. Exercise and plenty of drinking water. Avoid using morphine, if possible. Better operate than to use an opiate. If after 2 months treatment no good results operate. Also operate when there is obstruction or chronic jaundice. In cases of suppuration put in drain.

Jaundice (Icterus).

Types: Obstructive and Toxemic.

Symptoms: Langor, depression, irritability, headache. Visual disturbance. Sweat. Peculiar greenish or yellow skin and conjunctiva. Swelling of spleen and albuminuria, etc.

Treatment: Rest, light diet, plenty of water. Osteopathic treatment to abdomen and spine.

DISEASE OF THE DIGESTIVE TRACT.

Tonsillitis: (acute).

Characterized by an inflammation which forms an exudate on the surface of the tonsil. Suppurative tonsillitis or quinsy: In this, the enlarged tonsil is filled with pus.

Acute Follicular Tonsillitis.

Causes: Susceptibility or individual predisposition. Lesions are predisposing, cervical and upper dorsal. The infective agent

as staphylococcus, streptococcus. Poor and insufficient food
Bad air.

Symptoms: Comes on suddenly. Tonsils enlarge. Angina. Throat becomes sore and swallowing becomes difficult. Temperature may even reach 103 or 104 (in children). Anorexia, vomiting, constipation, coated tongue. Herpes is a common finding, usually around the mouth. Pain in the ear—extension thru the Eustachian tube to the middle ear. Local condition of the throat.

In tonsillitis, the membrane is found only on the tonsil.

Membrane: In tonsillitis is soft. Not so thick as in diphtheria. Lighter in color, turns yellow earlier and does not adhere so firmly to the true membrane. Membrane in diphtheria seems to stop abruptly while in tonsillitis it seems to be prolonged gradually onto the mouth.

Complications: Most common, probably, is inflammation of the middle ear. May become a very severe infection. Characterized by an intense pain around ear and earache. Condition may become chronic, causing a continual running of matter thru the ear drum. Mastoid cells may become infected. May lead to infectious meningitis.

Nephritis: Also a common complication. Care should be taken during convalescence. Neuritis: Peripheral. Some heart complications may come on. Myocarditis, endocarditis or pericarditis. Due probably to the organism itself.

Differential Diagnosis: Acute tonsillitis, diphtheria and scarlet fever. All most frequent in children. All acute in character coming on quite suddenly. All have temperature.

TONSILLITIS: Tonsils are enlarged and lymphatics in neck may or may not be enlarged.

In Scarlet Fever, lymphatics in neck are enlarged early in eruption. None in other. It is best in all severe cases to make swabs. Scarlet Fever is the most violent in onset.

Treatment: General spinal treatment. Treat neck and throat. Muscles over 1st and 2nd ribs are very sore. In every case of sore throat, the digastric is contracted. Relax muscles of hyoid bone. Spring jaw. Sometimes when the attack is coming on, these white spots can be touched with AgNO_3 (20%) solution and the attack be aborted. If treatment cannot be given, hot applications should be used.

A poultice of antiphlogistine may be used when the doctor

has not time to bother with the hot applications, or when the family cannot be trusted with doing the same.

Clean out mouth with solution 1-3 listerine, 2-3 water. A good gargle for older ones, listerine 1-3, peroxide 1-3, glycerine 1-3. Use about two teaspoonfuls to a half glass of water.

NEVER in any case give internal treatment. Rest in bed, light diet.

Suppurative Tonsillitis or Quinsy.

Deeper infection of tonsil, causing more extensive enlargement and formation of pus. Symptoms are more pronounced and prostration is greater.

Causes: One attack predisposes to another. Cold and dampness and spinal lesions are predisposing. Exciting cause: Staph or strep.

Symptoms: May be unilateral. Pain is throbbing and the throbbing may be felt more or less.

Complications: Pus may be absorbed, may corrode so as to break into carotid artery, hemorrhage following. May corrode into the respiratory tract and be absorbed into the lung.

Treatment: Patient should be kept in bed. Light diet. Keep bowels open. If necessary use enema. Usually, we cannot do much treating over this region. Use hot or cold applications—preferably cold, as this will tend to retard suppurative process.

How to Lance a Tonsil: Take adhesive tape and wrap around the knife about 1-2 inch from point. Make incision above and to the front of the tonsil. Pus will find incision if it is kept open by a dull probe.

Chronic Tonsillitis.

A condition often overlooked. Is probably responsible for many cases of backward children. A chronic inflammation of tonsils and lymphoid tissue of the throat.

Causes: Individual predisposition. Follows repeated acute attacks of acute tonsillitis. Follows infectious disease. Upper D. and C. lesions. 1st and 2nd ribs.

Symptoms: Tonsils look rough and are pitted. Some difficulty in swallowing and in breathing. The child becomes a mouth breather. Headache, a toxic symptom. Child is dull and backward. Does not develop as he should. Rickety-rosary and Harrison's groove.

Treatment: Two methods, surgical and osteopathic. Osteopathic treatment will usually suffice when other hygienic methods are used. Cold packs can be used over night. Treat region near angle of jaw. Some cases need surgical attention especially when breathing is very bad. Condition will probably return if osteopathic treatment is not administered.

DISEASES OF STOMACH.

Acute Gastritis.

An inflammation of the mucus membrane of the stomach. It is quite probable that indigestion preceded and is in part cause of acute gastritis. This condition is experienced as a symptom in the early stage of many infectious diseases. Predisposing causes are such as effect the nerve supply to the stomach. Lesions 8th to 12th Dorsal. Overeating, drinking cold water, infectious diseases and alcoholism are common causes.

Note: Dr. George says, "Alcohol is a bad toxin and probably brings on more illness than any other agent."

Symptoms: Pain in the stomach, about 1 hour after eating. Headache, nausea and vomiting, often a rash breaks out over body. No temperature unless the gastritis comes on as a symptom of some infection.

Treatment: Usually all that is needed is in the way of relieving pain. Treat stomach region of spine. No effort should be made to stop vomiting nor to stop the action of the bowels. Rest. Be careful of diet. Do not commence on solid foods. (If attack is very severe, stomach tube can be used.) Acute gastritis sometimes results in death even in healthy persons because of action of toxins on heart.

Chronic Gastritis.

An uncommon disease too often diagnosed. Chronic inflammation of the parenchyma of the stomach.

Causes: PREDISPOSING: Some abnormality of spine. 9-12 dorsal. EXCITING: Same as those of acute gastritis. Alcohol, etc. Cases where persons do not get enough to eat. Too much carbo-hydrate and rich pastry foods.

Symptoms: Pain. Distress after eating. Nervous symptoms. Dyspepsia. Much mucus is thrown into stomach. Tongue is usually more or less coated and breath has a bad odor. Sore mouth. Pain is not severe—more a feeling of discomfort.

Only ordinary pain on pressure. Stupor. Patient loses energy. Constipation. Chronic bronchitis. often accompanies chronic gastritis. Loss of weight.

Diagnosis: Depends on history of case. Usually of long standing. Absence of severe pain. Absence of blood as we would get in ulcer. Cancer is of short standing. Hypoacidity. Examine stomach contents. Give test meal of toast and tea (without cream or sugar). Remove an hour afterwards. In chronic gastritis, the HCl is always reduced or entirely absent. Mucus is present in excessive amounts. Pepsin is reduced. May be lactic acid.

Treatment: Spinal manipulations. Light diet. Feed proteid chiefly, cutting out carbo-hydrates, as much as possible. Avoid fruits fried in grease. In severe cases, a liquid diet may have to be resorted to—milk, soft boiled eggs. In some cases where pain becomes too severe, a stomach tube may be used daily to wash out stomach with water and salt.

Prognosis: Good in most cases, with 6 to 12 months treatment.

Ulcer of the Stomach.

Exists most commonly in neurotic women before the 40th year.

3 Cardinal Symptoms: Pain (comes on after eating). Hyperacidity. Hemorrhage. Blood in the vomitus found only in two conditions, (cancer and ulcer). Tenderness on pressure. Hyperacidity is found in only two conditions—neurosis and ulcer. Not found in cancer.

Causes: (Usually only a single ulcer). Gastric juice does not digest the walls of the stomach because of the circulation of the blood. When this is interfered with, shut off in some way, i. e., thru inflammation or because of embolus, an ulcer is formed in the area which is deprived of its blood. Vaso motor neurosis may be a cause. Indigestion. Hot foods. Spinal lesions. Overeating, eating too fast and not chewing. Vomiting usually accompanies the pain. 75%.

Differential Diagnosis: In ulcer, the pain comes on not later than 2 hours after eating while in neurosis it comes on 4 or 6 hours afterwards. Blood coming from the stomach is always acid in reaction. If it remains in the stomach for some time, it comes up as brown particles resembling ground coffee. Blood, when hemorrhage is profuse, may be thrown into the duodenum

and be passed with the feces. In such cases, it is black in color and resembles tar.

Complications: The scar tissue formed when ulcer heals causes contraction resulting in lack of acidity. There will be obstruction if healed ulcer is in pylorus resulting in retained food, vomiting, dilated stomach and visible peristalsis. Perforation resulting in peritonitis. Hemorrhage. Adhesions resulting from inflammations.

Treatment: An osteopath can treat ulcer of the stomach successfully. 1. Spinal treatment (3 to 7 times per week). 2: Rest in bed for bad cases. Rest also for stomach. Give patient nothing but water for a couple of weeks. Feed per rectum. Then begin by feeding a liquid diet. Keep up for a month or so. Whites of eggs may also be used. When patient gets up, do not allow too much exercise. When commencing to eat after rectal feeding give milk albumen water, etc, (frequently 2 to 3 ozs. at a time) increase until 6 ozs. of food can be taken every six hours. Begin to use semi solid foods, gradually for 2 or 3 months until patient can eat normal hard food.

Differential Diagnosis: (Ulcer, cancer, chronic gastritis and secretory neurosis). Three cardinal symptoms of ulcer. Pain, Hyperacidity, hemorrhage.

Runs a long, variable course. Cancer a short course. Some gastritis is associated with cancer. Usually not much pain. Cancer and chronic gastritis both show a lack of HCl. Seldom any vomiting in chronic gastritis. The pain is more of a distressing nature. A considerable amount of mucous is generally found.

Secretory neurosis (2 kinds). Hyperacidity, Hypoacidity. May have many different symptoms—headache, backache, pain between shoulders. Good appetite. Vomiting is not so common as in ulcer. Pain does not come on so early as in ulcer. No hemorrhage.

Cancer of Stomach.

Symptoms: Tumor. History of case. Cancer runs a rather short course. Patient does not usually live over a year after the first diagnosis is made. Loss of weight. Hemorrhage. Most of the cases vomit and in some of these the blood will be found. Distress in stomach, coated tongue, bad breath, indigestion. Reduction of HCl and in 1-3 of cases a complete loss of HCl. Where there is pyloric obstruction, lactic acid will be found. General cachexia. Some pain. Some temperature develops

toward the end of the trouble. Often hemorrhage resulting in coffee ground-like substance in vomitus.

Treatment: None that is entirely satisfactory. Surgical treatment, if given early may prolong the patient's life for 3 or 4 years. Very few cases are operative cases.

Gastrosuccorhea.

Continual hypersecretion of gastric juice without ordinary stimuli. An advanced stage of hyperchlorhydra.

Causes: Spinal lesions. Excessive and rapid eating, etc.

Symptoms: Pain on empty stomach may be nausea and vomiting, good appetite, clean tongue, excessive thirst. A test meal shows an excess of fluid especially at HCl. Emaciation.

Complications: Dilatation of stomach. Reduced peristalsis. Weight of contents draws stomach down. Stomach can be palpated. Visible peristalsis. Ulcer may precede or may follow this disease. Pyloric spasm (due to excess of HCl) causes pyloric obstruction.

Diagnosis: Determined by Character of pain.

Treatment: Wash out stomach with clean water. Give light diet (milk with lime water, cream, broth liquid foods.) Rest. Regular habits, simple life, plain food, proteid diet. Remove any irritation to nervous system as pelvic trouble, etc.

Neurosis of the Stomach.

Most common trouble of stomach. A disturbance of stomach not due to any organic change in organ, usually due to some kind of secretion. May occur as a symptom or a part of general neurotic affection.

Secretory Neurosis: Hyperchlorhydia or too much free HCl. May run up to 150 or 160 (normal 25 to 40.) Trouble appears in early adult life. Sex: probably found more often in women, 20 to 30 years. Comes on slowly. It occurs in connection with gall stones in older people. Symptoms come on after eating—because of excess of secretion. Pain is dull, burning after eating.

HYPERCHLORHYDRIA

Pain is less severe
Occurring 4 or 5 hours after eating
Relieved by an alkali.
Early adult life.
Found in women mostly.
Vomitus is very acid.
Excess of HCl.

ULCER

Pain is severe.
1-2 hour after eating.
Blood is found.
Early adult life.
Found in women mostly.
Vomiting accompanies pain in 75% of cases.
Excess of HCl.

Treatment: To build up general nervous system. Rest is required with proper environment. Wash out stomach if necessary. Treat splanchnic area to improve nerve supply to stomach. Regulation of diet. Cut out carbo-hydrates as far as possible. Eat only non acid (very ripe) fruits. Also eat such foods as will not stimulate a secretion of HCl. It may be advisable to use a liquid proteid diet. Milk with lime water to dilute acid. Soft boiled eggs. Meats are well taken. Some of the cereals. Do not overeat.

Neurosis:

Continuous secretion. Causes same as in hyperchlorhydria. Too much acid causing an irritation of stomach wall. In hyperchlorhydria, pain comes on a couple hours after eating. In continuous secretion, pain comes on later—about midnight (5 or 6 hours.) Pain is more severe than in hyperchlorhydria.

Treatment: Same as in hyperchlorhydria.

Motor Neurosis.

Irritative: Continuous peristalsis. Vomiting is common, without nausea. May be entirely nervous or may occur (and usually does) in pyloric obstruction. In cancer, chronic gastritis, ulcer. Lack of peristalsis: May be due to nervous distrubrance or thru loss of tone of stomach wall (muscles). Dilitation of the organ is usually found in these cases from gas.

Secretory Neurosis.

Not so much a pain symptom as a heavy, dull feeling of feeling of weight.

Obstruction of Pylorus: Due to mechanical cause. Due to neurosis where patient is thin, poorly fed and neurotic. Tonicity of muscles is lost thru poor nutrition.

Treatment: Complete rest. Take care of diet. May be advisable to use a liquid diet. We should seek to put flesh on the patient. When this is done, the patient will begin to improve. When due to mechanical obstruction, surgical treatment is the only treatment indicated.

Hematemesis: Cancer: 75% of cancer cases vomit blood. Ulcer: Hemorrhage common. Vicarious menstruation.

Acute Gastritis: Due to continuous straining and violent vomiting. To differentiate hemoptysis and hematemesis: Blood coming from the stomach and œsophagus is always acid. That coming from the lungs is always alkaline and usually frothy.

Must be at least a pint of blood in the stomach before we get the tarry stool.

Appendicitis.

Inflammation of the appendix. Appears both as acute and chronic. Chronic refers to recurring attacks which are usually acute in character. Due to infection of the appendix. Age—Young people under 40.

Causes: PREDISPOSING: Osteopathic lesions; innominate, ribs, spinal. Lower resistance is brought about by lowered innervation. Extension from ovary. Constipation. Harder parts of fecal matter drop into cæcum and obstruct the opening of the appendix. They absorb the secretions and become very hard. Finally sets up an inflammation.

EXCITING FACTOR: The infection which produces the pus. (Colon bacilli staph. and strep.) Foreign substances are given as causes. Trauma is also given.

Symptoms: Onset is sudden, with nausea and vomiting. Temperature 101 at 102. Constipation. Pain is variable at first, later in right side. By second or third day, a tumor mass can usually be palpated over region of the appendix. Abdominal muscles are usually contracted. To test for inflamed appendix when the abdominal muscles are very tense: Place hand on left side of abdomen and press, then suddenly release pressure. If a sharp pain is felt in right side appendix is affected. Tumor is a fluctuating mass. Leucocytes invade the area. If pain begins to subside and tumor to decrease, recovery has begun.

Differential Diagnosis: Usually little difficulty is experienced. Pain is not so severe as in colics. Constipation, tumor. No jaundice, no bladder involvement. Temperature 101 to 102 which lasts as long as trouble lasts.

Impaction: Appendicitis: No temperature in an impaction. In appendicitis, we find a leucocytosis.

Prognosis: Usually favorable.

Treatment: During first 2 or 3 days of trouble a good deal of treating can be done without danger. Later great care should be used. Feed liquid food. Milk is good. Lots of water. Do not feed anything for 2 or 3 days. Clean out colon with high colon tube. Use 2 or 3 quarts of water. Use warm water and soap. Treat carefully but thoroughly lower D. and L. Do not use ice bags unless patient's condition is known. The use of ice is only paliative and it often makes bad matters worse. It always

covers up some of the worst symptoms. Give cold sponge bath to reduce high temperature. Very gently lift caecum 2 or 3 times during first days. (to 3rd day.) Have patient take knee-chest position several times daily. If meteorism (gas) develops put in colon tube and let it remain. Also use turpentine stupes on abdomen and use saline enema.

Surgical: If patient is not improved at the end of 4 or 5 days, if temperature still continues pus has begun to collect, operation is then indicated. Also indicated in recurrent appendicitis. Some of these cases of recurrent appendicitis cannot be helped by osteopathic treatments although they are treated between the attacks. Surgical treatment is then indicated. To determine formation of abscess: Keep leucocyte record. When the general symptoms are clearing up and the leucocytes are decreasing, if the decrease in leucocytes suddenly stops the formation of an abscess has begun.

Acute Enteritis:

Acute inflammation of the bowels (acute diarrhea).

Causes: Primary and secondary with typhoid. Overeating. Eating spoiled foods, bringing about a toxic condition. Colds. Spinal lesions. Frequently occurs in connection with acute gastritis. It is said that 1-3 of the weight of the fecal matter is made up of bacteria.

Pathology: Mucus membrane appears red and congested.

Symptoms: Diarrhea (2 to 20 stools per day). Usually no temperature. This would depend on the cause of the infection. Fever may occur in children. Excessive thirst. Cramping pain during peristalsis. More or less mucus. Noise due to the passage of gas. Also tympany. Colic. Tenderness on pressure. May be visible peristalsis.

Prognosis: Good in adults. Many children die of this trouble.

Treatment: Patient is usually dry and lips are parched. Water should be restricted to a certain amount. No food for 24 hours unless barley water. Later on, milk, eggs and toast. Rest in bed. Apply heat to abdomen and back. Always find a contracted condition of muscles in lower Dorsal and Lumbar regions. After attack goes away, we can go ahead and correct spinal lesions. Have patient lie on face. Lift the legs by resting them on the forearm. At the same time put deep pressure over the lower D. and L. regions and over the sacrum.

Chronic Enteritis.

Chronic intestinal indigestion. Usually accompanies chronic gastritis. The condition usually follows acute enteritis.

Predisposing Causes: Spinal lesions. Lack of HCl. Over-eating, etc. Neuropathic constitution. Frequent attacks of acute enteritis.

Symptoms: Poor appetite. Food passes undigested. Some cases have diarrhea, while some may be troubled with constipation. Some colic. Splashing sound may be obtained due to excess of liquid in small intestine. No temperature. A feeling of fullness and distress in the bowel. Due to tympany. This comes on late—after food has left the stomach.

Pathology: Inflammation of the mucous membrane. Dilatation of the vessels in the walls. Excess of secretion of mucous. No blood.

Prognosis: Good if patient is not run down too much or if the trouble is not complicated with some other disease.

Treatment: Diet should be light and if patient does not suffer from stomach trouble, it should be one that is mostly digested in the stomach. Malted milk, gruels, eggs, broths, etc. Unless constipation prevails, a protein diet is beneficial. A small amount taken frequently. Rest should be taken in order to preserve the nervous energy. Only light exercise should be indulged in. Treat spine. Correct lesions. Abdominal treatment. Castor oil might be used with success if used early.—in cases of children, but never with adults.

Mucous Colitis.

(Chronic inflammation of the colon.)

Portions of the membrane will be sloughed off and passed with the feces. Occurs in neurotic women. Constipation is more common than diarrhea.

Symptoms: May be a sudden attack of pain preceding a discharge of mucus. Discharge of mucus. Gets worse and better at intervals. May even find casts in feces. May be sore in mouth and temperature.

Treatment: Treat to improve nervous system and conserve nervous energy. Rest. Remove irritation. Regulate diet. Give a laxative food. (Whole wheat and Bran bread.) Wash out colon every other day using 3 or 4 quarts of water to which has been added a teaspoon of salt for each quart, also add a little

soda. To relieve pain apply hot formentation. Treat spinal muscles. Avoid morphine. A hot salt enema will abort the pain.

Ulcer of Bowel.

In this condition, there is pain, mucous, diarrhea, blood, tenderness and temperature.

Causes: DYSENTERY: Ulcers occur sometimes, with pain diarrhea and blood in stools.

SYPHILITIC ulcer in bowels occurs in secondary or tertiary stage. (Very rare).

TUBERCULOSIS of bowel is secondary there is temperature ascites.

FECAL IMPACTION causes ulcer of bowel with necrosis, pain, blood and temperature.

STASIS causes ulcer of bowel with pain diarrhea, blood and pus.

Treatment: Paliative and removal of cause.

INTESTINAL DISEASES IN INFANTS.

Causes: Age 6 to 18 months. Season, summer. Improper feeding. Bad hygienic care. Bacterial infection. Predisposition.

Types with Differentiation.

ACUTE FERMENTAL. Small intestine usually. 10 to 12 discharges daily, often large. Little or no blood. Mucus. No tenesmus. Not much abdominal tenderness or pain. Temperature high 104 for one or two days then falling sharply by crisis. Other symptoms: Restlessness, flushed face, rapid pulse, nervous symptoms and emaciation if the condition is severe. Stools greenish, alkaline reaction, thin and very offensive. Formation of gas.

Ilio Colitis: Large intestine. 10-15-50 discharges daily, usually small. Blood and mucus sometimes shreds of tissue or membrane. Tenesmus. Abdominal tenderness and pain. Temperature may be high at first but usually soon moderates and falls by lysis after some weeks. Other symptoms: They closely resemble dysentery in adults. Stools yellow, green or brown.

Treatment: Food should be withheld for 2 or 3 days. Wash stomach out if toxic symptoms are marked. Give enema of warm water twice daily. When feeding is begun the lightest and most digestible should be given. Human milk is best food. At

first barley water or albumen water may be given (one pint water with whites of two eggs.) A little lime water (a teaspoonful to a glass) may be added to this to change the reaction. The anus and surrounding skin should be looked after to prevent soreness. Vegetable charcoal can be given with good results. Do not give castor oil.

Osteopathic: Give the best general treatment possible with special attention to lumbar and dorsal spines.

Cholera Infantum.

Is an exaggeration of some intestinal disease.

Symptoms: Fever. Extremities cold and cyanotic. Pulse weak. Eyes sunken. Often unconsciousness due to toxins. Extreme thirst. Vomiting. Convulsions. Irregular breath. Stools copious, very offensive odor at first, later thin and odorless.

Treatment: Try to get rid of toxins. Restore water to tissues by using saline infusion. Wash out colon with warm water. Keep extremities warm. Apply heat to abdomen.

Osteopathic: A good spinal treatment will check the diarrhea and support heart and nerves.

Enteroptosis.

Falling down of abdominal viscera.

Found in thin and neurotic patients, usually women.

Causes: Flabby abdominal muscles. Improper drainage. Constipation. Stomach troubles. Lack of vitality. Spinal lesions.

Symptoms: Variable. Stomach dilated. Indigestion. Hyperacidity. Constipation. Aching in back and head. Loss of weight. Ribs depressed. Atonic muscles. Pouching abdomen. Retroflexion of uterus. Disturbed menstration. Right kidney dropped below ribs.

Nervous Symptoms: General irritability. Anæmic. Hysterical.

Treatment: Thoroughly relax the entire spinal area. Keep patient off of feet as much as possible. (Better to keep patient in bed 4 or 5 weeks.) Try to increase weight by dieting. Liquid diet (whole milk, cream, broth, etc.) given frequently is best. Tone up abdominal tissue by treating. In some cases an abdominal bandage may be used. NEVER TELL PATIENT NATURE OF DISEASE.

Intestinal Obstruction.

Intussusception (invagination).

Causes: Actual cause unknown. It accompanies a condition of paresis of bowel wall.

Symptoms: Pain, usually in umbilical region. Reflex vomiting, straining at stool with passage of blood. Tenderness. A palpable tumor. In children the onset is often sudden even in a previously healthy child.

Treatment: If seen early the lesion may be reduced by manipulation. Begin by giving a thorough spinal treatment. Surgical treatment is often necessary.

Strangulation.

Causes: Often due to bonds of peritonitic adhesions. It may occur when there are congenital or acquired defects in abdominal contents. Also hernia is a common cause.

Symptoms: Usually acute and urgent. Reflex vomiting. Severe reflex pain. Collapse. Complete stoppage of bowel. Meteorism.

Treatment: Manipulation will often correct this condition if given early. To correct hernia, elevate hips, stretch tumor to allow blood to escape. Gut then will in many cases slip back into abdomen. Surgery should be resorted to at once if manipulations are not successful.

Twists (Volvulus.)

A twist in the intestine.

Causes: Persistent constipation. A long sigmoid flexure. Most common in older men. Usually occurs in the colon.

Treatment: Water, oil or air may be used to inflate the colon. Early manipulations are good. Surgical treatment may be necessary.

DISEASES OF THE RESPIRATORY SYSTEM.

Acute Rhinitis (Coryza or cold.)

An acute inflammation of mucous membrane of the nose, extending to the larynx and pharynx. It often accompanies an infectious disease such as measles, broncho and lobar pneumonia, scarlet fever, grippe, etc.

Causes: PREDISPOSING: Lesions in cervical and upper dorsal, unstable nervous system. Chill or exposure to cold moist

atmosphere. Diseases of nose and throat. Breathing bad air, irritating gases, dust, and smoke. **EXCITING CAUSE:** some infection.

Symptoms: Headache, a little dull feeling, some pain around the nose and eyes, pain in the back, constipation, some loss of appetite, some temperature. Herpes on lips. Thickened nasal mucous membrane. Thin discharge from nose later mucopurulent. One attack predisposes to another.

Treatment: Rest in bed is best. Hot foot bath or tub bath before retiring, also a glass of hot lemonade.

OSTEOPATHIC: Give a very virogonic spinal treatment and thoroughly relax all contracted musculature, with special attention to upper dorsal cervical and sub-occipital regions. If sore throat develops, relax supra hyoid and mastoid muscles also tissue around angle of jaw. For headache treat scalp, work along occipital and 5th nerves. 9-10 of all cases of deafness are due to colds, inflammation spreading to the middle ear. Catarrhal deafness is incurable.

Chronic Rhinitis or Chronic Catarrh.

Chronic inflammation of nose and throat accompanied by some changes in mucous membrane. 2 types—hypertrophic and atrophic.

Causes: About the same as acute rhinitis. Repeated attacks of cold. Spinal lesions—cervical and upper dorsal. Exciting cause—some micro-organism.

Symptoms: **HYPERTROPHIC**—Most common. More or less inflammation. Mucous membrane becomes thickened. Exudate is copious. Usually of a thick, mucopurulent character. Inflammation may extend to bones of nose, even to the extent of blocking the air passages.

Toxic Symptoms: Headache if inflammation extends to the sinuses. Vertigo. Middle ear trouble. May extend to temporal bone, bringing pressure on the 7th and 8th nerves. No unusual or bad odor. In either type the sinuses may be infected frequently requiring an operation.

ATROPHIC: A much more serious affair. Atrophy of membranes and bones. Middle septum may entirely disappear. Passages are large. No copious discharge. A very bad odor. Sense of smell is partially or completely lost. Hearing is gradually lost. Trouble is in the middle ear.

Treatment: Chronic catarrh is an extremely difficult disease to cure. Improve nutrition to mucous membrane. Look for lesions in cervical and upper dorsal. Treat entire dorsal region very vigorously. These patients should live out of doors as much as possible.

Loosen tissue around the ears. Treat throat and supra hyoid muscles. Spring jaw.

Douches: 1% solution permanganate of potassium or 1% carbolic solution. Weak salt solution. Never use douche under pressure.

Laryngitis (Acute Catarrhal.)

Inflammation of Larynx.

Causes: Colds. Osteopathic lesions. Acute infections. Mechanical irritants (dust, odors, gases.) Often follows pharyngitis or inflammation of the nose. It may follow venous stasis (from heart disease).

Symptoms: Fullness in throat. Some pain. Hoarseness. Aphonia. Exudate which after a day to two becomes tough and muco-purulent. Some temperature.

Treatment: Hot baths. Hot drinks. It is better to keep patient in bed a day or two. Cold pack about throat often helps.

OSTEOPATHIC: Give thorough dorsal and cervical treatment. Relax supra hyoids. Spring jaw. Work on larynx.

Laryngismus Stridulus (False Croup).

Occurs in children. Usually accompanying a cold and a nervous condition. A barking cough common along toward 9 or 10 o'clock. Dyspnea is marked. Child becomes cyanotic. Will continue (maybe at intervals) until the cold is cured. As soon as the patient succeeds in coughing up some of the mucous, the attack disappears until the next night or so.

Treatment: Cases of spasmodic croup can be successfully treated osteopathically. Back and cervical muscles are much contracted. Relax tissues. Spring ribs. Usually, steaming will furnish some relief. Use newspaper to conduct steam to head of patient. Hot fomentations to neck and chest. Dry heat is also good, using flannel clothes.

Chronic Laryngitis.

Follows attacks of acute laryngitis. Is accompanied by hoarseness or partial loss of voice. Vocal cords tire. Poor health and osteopathic lesions may predispose.

Tubercular Laryngitis.

Due to tuberculosis infection of the larynx. May be primary. Runs a rapid and fatal course. If lungs are involved, we get symptoms of pulmonary T. B.

Syphilitic Laryngitis.

Ulcers appear in the larynx in the second stage. This type never terminates fatally. The ulcer finally heals leaving scar tissue. This contracts and may cause trouble with the voice.

Treatment: (chronic laryngitis). Rest from talking indicated. Relax supra hyoid muscles. May find hyoid bone out of line. First and second ribs, many times high. Relax cervical muscles. Not much can be done for tubercular laryngitis. Syphilitic should be treated same as simple. Cauterize ulcers with AgNO_3 10 or 15% sol. This is work for a specialist. Patient should be careful not to spread the disease thru public drinking cups, etc.

Hay Fever.

A functional nervous disease characterized by inflammation of nose and eyes.

Causes: PREDISPOSING: Irritable condition of nerves especially 5th. Local disease of mucus membrane, neurotic or unstable constitution. Lesions in cervical and upper dorsal. Digestive disturbances. Usually comes on in summer or fall.

EXCITING: Dust. Chemical irritants. Odors. Pollen, etc.

Symptoms: Sudden onset of acute coryza. Inflammation of nose and eyes with thin watery discharge. Sneezing. Dyspnea. Headache. Malaise. Pain and fullness in affected area. Often associated with asthma.

Treatment: A change of climate is of little value unless it eliminates the exciting cause. Medical treatment is of little or no value. Examine nose for broken bridge or deviated septum, as well as Polyps and hypertrophy of bone. (These cases should have surgical treatment). DIETETIC. Give an easily digested nutritious diet, such as sweet fruits, fresh vegetables, fish, eggs, milk (butter milk preferred), Bran gems. Avoid constipation.

OSTEOPATHIC: Give these patients your most careful attention. Treat to improve central nervous system. Treat spine, especially cervical region. Examine ribs, especially first rib. Thoroughly relax all tissues in head, face and neck. These patients should be relieved as much as possible from work and worry.

Rheumatoid Arthritis.

Characterized by progressive deformity of joints. Local inflammation with erosion of the surface that come together and proliferation of bone tissues where there is no pressure.

Cause: Probably acquired from a neuropathic constitution. Exciting cause is probably some toxin formed within the body. Age—young adults. Sex—mostly female. Heredity. Cold, exposure, overwork, injury. Spinal lesions.

Four Types: General progressive; mono; vertebral; juvenile.

GENERAL PROGRESSIVE: Most common form. Invariably begins in small joints of hand. Deformities make their appearance. Motion is impaired. After going up the arm, it spreads to feet and legs. Skin is dry and shiny and nails are affected.

MONO-TYPE: Usually hip-joint alone is affected following injury. Gradually grows worse. Most of these cases occur in men. Motion limited. Spastic muscles, shortened leg. Foot becomes everted.

VERTEBRAL TYPE: Begins in early adult life. More common in men. Pain in back. Spine becomes stiff and ankylosed. Overwork or exposure. Fevers. Posterior condition of spine with no compensatory curve. Neck is often stiff. Whole spine becomes involved with proliferation of tissue.

JUVENILE TYPE: All joints are involved. Rather acute in character, lasting 1 or 2 years.

Pathology: General progressive type. Nodular formation (Heberden's node). Synovial membrane disappears and bone begins to waste away. Some proliferation of fibrous tissue. Muscular atrophy follows. Skin is dry and shiny. Nail becomes black and sloughs off.

Diagnosis: Chronic rheumatism and rheumatoid arthritis are very much the same. In both there is chronic joint inflammation. Chronic inflammation is the essential trouble in chronic rheumatism while a lack of nutrition is the principal factor in rheumatoid arthritis. No destruction of bone in chronic rheumatism, but we do get proliferation of tissue. We do not get crepitus and very little if any deformity (chronic rheumatism). Post infectious arthritis—due to infection.

Treatment: Rest to build up the nervous system. Free from care or worry. Light exercise or work.

Diet: Patient should eat plain food and not too much of it. Constipation should be avoided.

Osteopathic Treatment should be given frequently. Treat spine to improve nerve impulses going to the affected part. Usually we can find some lesion in the dorsal region. Hydrotherapy can in some cases be used to advantage. Warm tub baths should not be continued if they wear on the patient. Joint can be manipulated to the extent where pain is not felt. Much force should not be used.

Chronic Rheumatism.

Chronic inflammation of joints (1 or more).

Causes: Cause is unknown, but it is thought that heredity, age, sex, and poor hygiene predispose.

Symptoms: Usually larger joints are involved from the first. As a rule, the trouble is bi-lateral.

Limitation of motion and proliferation of connective tissue causing enlargement of joint. Pain is also a symptom. Deformity accompanies the disease, due to the extra amount of tissue and contraction of tendons and ligaments. No crepitus.

Treatment. Treat to build up general health of patient. Treat dorsal region and if possible, stimulate excretions. Usual amount of joint manipulation is permissible, but do not treat so hard that the pain will continue after the manipulations are given. Tend to stretch tendons and help absorption of fibrous tissue. These cases are hard to do anything with, but may be helped by osteopathy. Rheumatics should be advised against catching cold as they are, as a rule, very susceptible. Plenty of drinking water and a diet consisting of plain food. Long periods of treatment must be given—2, 3, 4, years.

Rickets.

A constitutional disease in which the bones lose their mineral matter, become soft and nodules make their appearance. More often seen in the young and in infants, beginning from 6 months to 2nd year.

Causes: Bad air. Unsanitary surroundings. Poor diet. Predisposition. Appears more often in bottle-fed children. It is usually found in the poorer classes.

Physical Signs: Posterior curvature. Spine feels thick and there is limitation of motion. Pigeon breast. Pouching abdomen. Rickety-rosary. Sibson's Furrow. Deformity of hands and wrists. Wrists may even become larger than the rest of the arm. Lack of strength. Profuse sweating on top of head.

Head appears large and bulging and face seems small and pinched.

Diagnosis: Rickets. Posterior curvature. Physical signs present.

T. B. Angular curvature. Physical signs lacking.

Treatment: Give a rich, light easily digested diet. If milk is given and curds occur in the stools lime water is indicated. The intestinal tract should be kept open. Give general osteopathic treatment with special attention to splanchnics to aid digestion. To prevent deformity do not allow patient to stand. A hard bed is best.

Complications: These children are liable to intercurrent diseases, especially those of respiratory tract—pneumonia, T. B., dystenery.

Diabetes Mellitus.

Fairly common. Is a constitutional disease characterized by an excess of grape sugar in the blood, resulting in the appearance of grape sugar in the urine.

Causes: Probably due to disease of the pancreas (80%). Neurogenous in most of the remaining 20%. Injury of the 4th ventricle, spinal cord, tabes and tumor. Obesity and gout—Age 20 to 30, 20%; 30 to 40, 25%; 40 to 50, 25%.

Sex, more common in men than in women. Heredity. Race, Jewish. Class—found more in the higher circles. Often a symptom of cirrhosis of the liver. Spinal lesion: Posterior curvature of the lower dorsal, and upper lumbar region. Rigid thru this region. Grows worse as disease goes on.

Symptoms: First probably noticed is an increase in the amount of urine passed. This occurs during the day. Urine clear. High sp. gr. Amount large. Glycosuria. Albumen is to be found later in the disease. Patient is thirsty. Appetite is usually good. Loses weight and becomes weak and depressed. Some neuritis. Tongue coated. Usually constipated. Mouth dry and parched. Breath fetid. Skin is dry and is very susceptible to skin disease. Very susceptible to gangrene of feet.

Complications: Headache, insomnia, pain in legs—coma may develop. All are nervous complications. Coma comes on suddenly during course of disease. Called diabetic coma, due probably to some acid toxin. Lasts from 2 or 3 hours to several days. A large percentage develop T. B. Pneumonia is a common complication. Boils, carbuncles and gangrene. Anorexia later in the disease. The earlier in life the disease develops, the

shorter the course. Disease of kidneys commonly found. If kidneys heal, the diabetes disappears. Gums are red and inflamed.

Treatment: Diet: Exclusion of carbo-hydrate foods is a good thing. If reduction of sugar takes place it is well to continue this method. A carbo-hydrate free diet is more apt to increase malnutrition. Diēt: Meat, fish, small pieces of bread, butter, some vegetables that contain little starch. Warm climate of even temperature is probably good.

Osteopathic Treatment: Most cases improve and do better with treatment. Chronic cases of 2 or 3 years standing are usually carried off by some intercurrent disease, in spite of all that we can do. Special attention must be paid to the gums and mouth as sores are especially liable to develop. Treat pain in legs as if treating sciatica. Arterio-sclerosis should be watched for. Practically no treatment nor drug will have much effect on a patient who is comatose.

Obesity.

A disease where fat is deposited in the tissues.

Causes: Lack of exercise, age and sedentary life have a tendency to increase the accumulation of fat. Spinal lesions—upper part of Dorsal is posterior.

Treatment: Cut diet in half and make them take plenty of exercise. Restrict fats and carbo-hydrates. Massage is not so good as exercise, as the muscles are not left in so good condition.

Gout.

A very rare disease in this country. Seen in older people especially in those who eat well and take little exercise. Characterized by a deposit of urates around the joints especially in the joints of the great toe. Deposition of urates can also be detected in the cartilages of the ear. Locally, there is a rise in temperature and swelling coming on during the night. Keeps up for 2 or 3 nights. Then disappears to return in a month or so. Acute pain and acute inflammation.

Treatment: Very difficult to remove pain. No drug will have any direct effect on this joint process. Absolute rest in bed and application of hot fomentations. Fast patient for a couple of days. Start in with light diet. Plenty of water. Make patient take sufficient exercise. Chronic gout usually appears after acute attacks. Tissues sometimes break down and ulcerate. The urates may even be seen on the surface. Never manipulate

joint. Give good spinal treatment. Avoid concentrated foods and meat. Take plenty of exercise.

Enlarged Prostate.

Found in men 50 or 60 years of age. Due to alcoholism, abuse of function, injury. The bladder is nearly always infected in cases of locomotor ataxia and enlarged prostate. Is seat of inflammation and causes retention of urine. Often diagnosed as stricture.

Treatment: Osteopathic. Give spinal treatment and relax tissues in all parts of the pelvis, especially around coccyx, rectum, and anus. If there is cystitis irrigate the bladder, otherwise do not. In all cases, massage the gland. This massage should be given about twice a week. (3 to 5 minutes at a time). Omit this treatment in case of inflamed prostate. In all cases give it carefully.

SURGICAL: If the patient shows no improvement after two or three months treatment then surgical intervention is necessary.

Epistaxis (nose bleed).

Hemorrhage from nose, usually from artery to septum.

Causes: Trauma, picking at nose, polypus. General—congestion, stasis due to cardiac insufficiency. Blood diseases hemophilia, leukemia, pseudo-leukemia, pernicious anemia, acute infectious—typhoid, pneumonia.

Treatment: Local measures to stop hemorrhage, adrenalin, caustics, trace of iron, hot or cold water, all affect the vaso-motors. Plugging the nose with cotton or gelatin.

Osteopathic: Deep pressure to sub-occipital region about on the arch of the atlas. Work on vaso-motor, causing contraction of the vessels.

Note—Dr. Laughlin uses same treatment in apoplexy, being careful not to move the head. Pressure on upper lips cuts off artery to septum.

DISEASES OF THE HEART.**Endocarditis.**

Responsible for nearly all organic heart diseases. Seldom primary. Usually secondary to some other infections. In amputation of the endocardium.

Types: Acute, chronic, malignant, benign, ulcerative or malignant usually fatal. Benign usually recover, but is responsible for chronic endocarditis.

Acute Malignant Endocarditis.

Most authors think it is always secondary. From pus, pneumonia, T. B., typhoid, rheumatism, gonorrhoea, scarlet fever.

Causes: Causes of malignant and benign are the same, the difference being in the degree of the pathology.

Pathology: The trouble nearly always occurs on the left side, the mitral valve being affected. Some think it is on the left side because micro-organisms grow best in arterial blood. Valves are always attacked. They get rough due to the exudate and the growths forming on them. Growths are due to microorganisms, fibrin or blood elements.

Symptoms: First get history and find primary cause. Often develops like typhoid or malaria and differentiation is difficult. Also from nephritis. Comes on after some other disease. Temperature is high or irregular, quick respiration, heart irregular, toxemia and may be delirium. There is said to be no murmurs in 1-3 of cases. Septic symptoms. Often infected emboli. Note: Dr. Laughlin has never seen a case.

Prognosis: Nearly all cases die.

Simple Endocarditis.

Follows acute rheumatic fever. Follows 50% all cases in medical practice. Follows scarlet fever, acute chorea, pneumonia, typhoid fever, puerperal, acute gonorrhoea, diphtheria.

Benign Endocarditis.

Simply produces an inflammation. There may be no change in the heart, but usually, proliferation of connective tissue causes insufficiency.

Symptoms: Not pronounced. If patient's heart is watched every day while recovering from rheumatic fever, etc., may be able to tell whether endocarditis is present or not. A very slight murmur, heart skips a beat occasionally. Beats rapidly on least exertion.

Treatment: More important to avoid endocarditis than to treat it after it comes on. Prophylaxis is most important. Have endocarditis always in mind during rheumatic fever, scarlet fever, pneumonia, etc. Watch heart every day for signs of a slight murmur. Rest. Over 50% of cases occur from rheumatic fevers. Make patient stay in bed 2 weeks after temperature has gone down. In acute diseases, keep patient in bed during convalescence. If there is a slight murmur, keep patient in bed 3 months if necessary.

Osteopathic: Correction and relaxation of Dorsal spine. Raise ribs on left side. Spring 2nd to 8th ribs of left side. In treating rheumatic fever, treat heart all the time. Some germs grow best in arterial blood, on account of the oxygen and of CO₂ in the venous blood. Get good blood to the part to improve the resistance of tissue. Arterial blood is not germicidal for all germs.

Chronic Endocarditis.

Causes: Acute benign endocarditis, atheroma occurring chiefly in young and middle aged men, rupture which usually takes place after the valve is diseased but it is possible for valve in good condition to rupture as the result of extreme exertion after fatigue. Relative insufficiency—disease at base of valve. The left heart is always the one to be involved at the beginning unless congenital. Very common for acute malignant endocarditis to occur in chronic endocarditis.

Diagnosis: Aortic insufficiency or regurgitation.

Causes: Same as others. History of infectious disease. Immense hypertrophy in aortic insufficiency. Heart may weigh 50 to 60 ounces.

Physical Diagnosis: Apex down and to left. Precordial prominence especially in girls and young women. Apex beat seen on inspection. Weak pulse, arteries throb. Palpation confirms inspection. Thrill can be felt in neck and just over the sternum. Percussion to determine the size of the heart, not used much by Dr. George. Auscultation with or without Stethoscope. Murmurs are present because valves are hard and indurated, and blood flowing back gives sound. Murmur occurs after the contraction of the heart or systole, and during diastole.

Aortic Stenosis:

Not a common condition. Usually occurs in connection with incompetency. Must be considerable to show physical signs.

Occurs almost entirely in elderly people. Base of aorta contracts. Usually some insufficiency of valve in first place. Blood has difficulty in getting thru this narrowing. Some hypertrophy of left ventricle.

Physical Examination: INSPECTION: Little deformaty in chest wall except in young people. Aortic stenosis most common in men. Have a soft pulse.

PALPATION—Apex beat often times violent. Not so violent as in insufficiency. Pulse retarded and not full. When the aortic valve closes, we get a thump, and the thrill is transmitted to the chest. It may be felt by putting the finger between the 2nd or the 3rd intercostal spaces, right beside the sternum.

MURMUR: Systolic in region of the aortic valve. Thrill is transmitted along the arteries. This is not so in insufficiency.

Diagnosis: Rather prominent apex of heart with a small pulse. Systolic murmur best heard over aortic valve. Thrill transmitted along the arteries.

Mitral Insufficiency: Most commonly affected in endocarditis resulting in insufficiency. Valves thicken and deform. Do not inflate as they should. The blood coming both ways into the left auricle, cause it to dilate, and there is a little hypertrophy, but the most change takes place in the left ventricle. In Dr. George's post mortems, he has never found much change in left auricle. The ventricle has most of the blood to handle twice and there is a considerable amount of hypertrophy. Mitral insufficiency leads to trouble in right heart, but that always occurs late. Stasis in the lungs. The patient usually has a hacking cough. May be in good health until compensation fails. Stasis and congestion in the lungs causes blood from right ventricle to meet obstruction. Some hypertrophy of right heart. Ultimately we have insufficiency of tricuspid valve, and when this comes the end is near.

Edema: Physical signs: Slight precordial prominence, prominent apex beat. Apex displaced down and to the left.

Auscultation: Murmur when left ventricle contracts, which displaces first sound. If the ear is placed firmly against the chest wall, murmur is heard. Lift ear just a little from the chest wall, you may hear the first sound.

Mitral Stenosis: Heard best at apex. Patient will live a long time if compensation lasts, but as soon as the right heart becomes affected, the prognosis is bad. Heart muscle at best is very poorly nourished.

Mitral stenosis is very rare, but it may occur. Follows endocarditis. The valve may become funnel shaped. Most of the trouble occurs in the right heart due to the back pressure of the blood. Left auricle hypertrophies.

Signs: Presystolic thrills over apex, precordial prominence, poor pulse, congestion of lung, second pulmonia sound is loud.

Pulmonary Insufficiency: Right heart usually involved thru mechanical causes due to disease of the left heart. Cases terminating fatally, do so after the right heart becomes involved. Disease of pulmonary valve is rare and it must be secondary following some acute infectious disease. Mechanism is just the same as in aortic insufficiency. There is no difference in radical pulse. There is hypertrophy of right ventricle. Diastolic murmur either deadens or takes the place of the second pulmonic sound. The tricuspid valves ultimately become insufficient and when this occurs it is only a question of time until the patient dies.

Pulmonary Stenosis: Hypertrophy of right ventricle, relative insufficiency of tricuspid valve, systolic thrill which is harsh.

Tricuspid Insufficiency: Nearly always due to hypertrophy of right ventricle, which in turn is due to Mitral disease. Is a relative disease, very seldom being primary.

Signs: Venous pulsation can be felt in superficial veins and usually in the liver which is enlarged due to passive congestion. Pulse in the veins occurs only in this disease and is absolutely diagnostic. A systolic murmur is heard best over the sternum.

General Symptoms of Valvular diseases: Are numerous and varied. As long as compensation is good, patient may not know that he had heart trouble, but it is well to acquaint patient with facts that he may do all in his power to maintain compensation. Practically no symptoms until compensation begins to break.

Signs of Heart Disease: No temperature, loss of strength, may be some loss in weight, usually anemia on account of poor nourishment, cardiac asthma, lung trouble, (bronchitis), finally edema of hands and feet—pit on pressure, limbs and abdomen swell. Fluid is gotten rid of by sweating or by use of trochar. About the time heart begins to fail, heart beat becomes weak. Most frequently beats fast.

Nervous Symptoms: Insomnia, irritability. May develop mania or alcoholism.

Respiratory Symptoms: Difficulty in breathing, cough may lead to mistaken diagnosis.

Gastric Symptoms: Pain, indigestion, chronic gastritis usually present, but found only when there is obstruction to portal vein. Constipation.

Liver Symptoms: Very marked when compensation fails. Congestion may be induration and contraction, ascites as a late symptom.

Kidney Symptoms: Congestion usually resulting in parenchymatous nephritis. Small amount of urine, high specific gravity, solids not fully eliminated, albumen, casts occasionally. Most cases of heart disease die from some one of the causes enumerated.

Terminal Symptoms: Edema.

Treatment: In compensated cases or where compensation is good. It is necessary to have co-operation of patient. Patient must lead an inactive life, free from excitement, and not be ambitious. Must be regular in his habits, eat simple foods and take rational amount of exercise.

An intercurrent trouble has a bad effect on the heart.

Osteopathic Treatment: Most essential in order to keep up compensation. Lift ribs on left side. Free up peripheral circulation. Spinal treatment—get motion and spring the spine.

IN BROKEN COMPENSATION: Irregular heart beat, heart muscle does not contract well, palpitation difficult breathing, patient should go to bed and stay there until compensation is restored. Less work is thus thrown upon the heart. Should have a simple liquid diet. The osteopathic treatment is corrective work along the spine and also the ribs. This will improve nutrition to the heart centers. If the case is bad, treatment simply relieves the symptoms. Try to relieve congestion of the kidney and lungs by treatment. The relief is only temporary unless compensation is restored.

IN PALPITATION: Lift the ribs, spring the spine, place an ice bag right over the heart.

THE GASTRIC SYMPTOMS: Are very common where there is portal obstruction. The patient may not be able to retain food or water. Dr. Laughlin has washed out the stomach with saline solution to some advantage, he thinks. Regulate the diet, give small quantities of peptonized milk. Also milk with lime water in it.

IN DROPSY: The patient is not able to lie down, and being poorly nourished, wastes rapidly. Get rid of the fluid. Dr. Laughlin tapped a patient 20 to 30 times in two weeks. Tap midway between the pubic bone and umbilicus.

Fluid may be gotten rid of in a healthy person by sweat baths. Every one does not have the vitality to stand this. Place patient in a tub at body temperature. Increase up to 110 or 115 F. Do not keep in a tub very long. Then wrap patient in hot blankets (wet), lay on a table surrounded by hot water bottles for 30 minutes.

Pericarditis

Inflammation of pericardium. Same as inflammation of the pleura. Characterized by sero-fibrinous or purulent exudate. Caused by infection, but it is seldom primary in the pericardium.

Causes: Rheumatism, pneumonia, sepsis, scarlet fever, puerperal fever. Predisposing causes: Cold, exposure, trauma.

Pericarditis is not so common or so serious as endocarditis, but occurs after the same diseases. Some authors say that pericarditis is the only symptom of rheumatism if the joints escape. It is very difficult to diagnose.

Other Causes: By direct extension from the lungs, œsophagus, stomach, glands. Toxemia due to gout, diabetes, nephritis.

Forms of Pericarditis: Dry: without effusions. Wet: with effusions. Dry pericarditis gives no symptoms. May be slight friction rub.

Symptoms of Pericarditis with Effusion: Usually temperature. Likely due to the original disease. Couple of degrees in the evening. Difficult breathing due to compression on lungs and heart interfering with diastole. Pain about the heart extends up into the neck and down into the arm. Angina pectoris occurs in coronal artery disease. Also cerebral symptoms—delirium and restlessness. Precordial prominence in women and children if effusion is great. Absence of apex beat, this occurs also in massive pleurisy. Cardiac insufficiency. On palpation one may not be able to feel apex beat. If patient is able, have him to sit up and lean forward and beat can be distinguished. To and fro friction rub. Best heard near base of heart. On percussion, area of dullness will surprise one if effusion is great.

Symptoms of Cardiac incompetency: Pulmonary stasis, chronic gastritis, congestion of lungs, liver, kidney, edema finally.

Pericarditis common in cattle due to puncture of pericardium. Cow may mope around and die without apparent cause.

Diagnosis of Pericarditis: Dullness, to and from friction rub, absence of apex beat, in connection with good pulse. Course: usually an acute course 3 to 7 weeks. Results: Resolution. If dry form, absorption of fluid followed by complete recovery or adhesions may form near base of heart. As motion is not so great here as near apex.

Prognosis: Good unless it becomes purulent.

Treatment: Absolute rest in order to give nature an opportunity. Diet—light liquid.

OSTEOPATHIC: Daily relaxation of dorsal and cervical muscles. No hammer and tongs treatment. Gently spring spine and ribs. Lift ribs on left side and loosen up dorsal area. Equalize circulation and lessen resistance to it. In delayed absorption aspirate. Insert needle in 5th interspace about a couple of inches. Only a part of the fluid should be removed as this releases the tension and the rest is absorbed. Pain may be removed by an ice pack.

Myocarditis.

Inflammation of heart muscle. Usually occurs in connection with endocarditis.

Causes: Pneumonia, typhoid, rheumatism and diphtheria.

Symptoms: May be entirely absent and death may occur suddenly. Pulse soft and full, apt to be irregular. Relative mitral lesion and murmur. If patient has myocarditis, there is only one thing to do—keep in bed 1 to 7 weeks as necessary. Same treatment as in pericarditis.

Chronic Myocarditis.

Not often diagnosed. Seldom occurs by itself, but in connection with valvular disease. Some cases follow acute myocarditis or infectious disease. Gross change: Hypertrophy of heart.

Symptoms: Heart irregular. Beats labored. Fibrous tissue in muscles, resists the normal heart action. Pain—variable and radiating.

Diagnosis: History of the case, pain, hypertrophy and dilatation. Relative mitral leakage, difficult breathing, stasis and edema.

Prognosis: About the same as in mitral disease. Patient may live a long time with proper care. Diagnosis often made

from the following: Arterial-sclerosis, middle aged and elderly people, relative mitral leakage, hypertrophy and dilatation, fast and irregular beat, and difficult breathing.

Treatment: Rest. Spinal treatment, liquid diet. Best not to allow patient to raise up in bed. Cervical and dorsal treatment not very effective.

Neurosis of the Heart.

Palpitation. May be more or less of a permanent condition, especially in excitable and nervous people. That condition of the heart where it is irritable and easily affected by toxins and reflex conditions. Heart beats irregularly, violently and rapidly.

Causes: Reflexly may result from dyspepsia, constipation, intestinal parasites, gall stones, floating kidney or pelvic diseases. Toxic coffee, alcohol, tobacco and drugs. It also occurs with organic heart disease.

Symptoms: Feeling of depression about the heart, patient is restless. and complains of dyspnoea, "fluttering" of heart, anxiety, vertigo, tinnitus, etc. No especial physical signs, but heart may hypertrophy if palpitation keeps up for a long period of time.

Treatment: Absolute quiet, rest, removal of reflex causes. Spinal and rib treatment, especially in the left side from 5 to 10 minutes. Ice bag over heart has a quieting effect.

Tachycardia.

Heart beats rapidly and sometimes violently.

Causes: Exopthalmic goiter—Thyroid secretion is a stimulant, hence rapid heart beat. 120-160 later have hypertrophy, dilatation and insufficiency. Occurs in organic heart disease at a late stage. Vascular diseases. Acute infections, exhaustion, constipation. Toxins act on nerve supply to the heart.

Treatment: Depends largely upon the cause. If reflex remove cause. If functional, rest and treatment.

Bradycardia.

A slow heart. A symptom of myocarditis.

Causes: Acute infections (during convalescence), typhoid, diphtheria, rheumatic fever, chronic indigestion, cancers, exhaustion, poor nutrition from diabetes, and pernicious aortic stenosis.

Forms: Constant and paroxysmal. Treatment same as for Tachycardia.

PHILADELPHIA COLLEGE OF OSTEOPATHY
1892 Spring Garden Street
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Angina Pectoris.

Angina pectoris is said to be functional tho it never occurs independent of organic heart disease. There is always something wrong with the arteries.

Causes: -In men, after 40, not conscious of any heart trouble, excitement or strain, artero-sclerosis, gout, rheumatism, contraction of kidney, infectious diseases, age, hardening of coronaries family predisposition. Pain originates in cardiac. Cause of pain not known. Probably spasm of muscle which leads to exhaustion.

Symptoms: Pain chief symptom. Due to coronary artery disease. Feels as if an iron hand were gripping heart. Radiates to neck and down arm (left chiefly) lasts only a short time. Mental anguish. Usually cannot speak, although conscious. Sweating. Death.

Forms: Slow onset, preceeded by dyspnea, precordial depression, etc. Rapid onset, Angina is the first symptom.

Treatment: Must have treatment. Find cause. If high living, cut it down and substitute good, nutritious food. Medical men use nitro-glycerine—said to affect size of vessels. Not much to it, because coronaries are as hard a a pipe stem. Lift the ribs loosen muscles, spring spine. Get knee in patient's back and spring spine vigorously. Have patient live quiet simple life and avoid alcohol, tea and tobacco.

Prognosis: If patient recovers from first attack, will probably have a second attack and die.

Artero-Sclerosis.

Hardening of blood vessel walls.

Types: GENERAL: Peripheral. Vessels involved. Central ones may not be. LOCAL: 'Corronaries,' aorta, cerebral, pulmonary.

Causes: AGE: (seldom under 40), sex, (90% male).

TOXINS: Alcohol, not so important alone. Must be connected with overwork, high living, late hours, etc.

AUTO-INTOXICATION: From constipation, indigestion, brights disease.

Spinal lesions affecting metabolism and elimination predispose.

Heredity: The disease is not inherited, but a predisposition to it is.

Symptoms: Hypertrophy of the heart, second aortic sound increased, vertigo, hemorrhage, retinitis, renal symptoms (nephritis.) Radial arteries hard like a whip cord. Impaired digestion. Pulse hard and rapid. Senile dementia may develop.

Treatment: Change manner of living. Avoid rich foods. Eat only plain food and just enough for nutrition. Avoid all stimulants and narcotics, as well as all responsibility and worry.

Osteopathic: Treat to get motion in every spinal articulation, to increase elimination, to improve nervous system and to relax musculature. Severe cases cannot be cured but can be helped.

DISEASES OF THE RECTUM

NOTES FROM LECTURES OF DR. F. L. BIGSBY

Instruments.

The instruments most commonly used by proctologist are:

1. Head mirror and head lamp.
2. Small reflecting mirror, (one that will pass through a proctoscope).
3. Rectal specula, (not much used).
4. Proctoscope, (most commonly used). Three types, anal-proctoscope, rectal proctoscope, colon proctoscope.
5. A set of probes.
6. Bougies. They come in sets, made of woven wire.
7. Aspirating instruments, (any ordinary hypodermic, if strong, will do).
8. Rectal dilators (Pratt' hollow metal dilators are best).
9. Also one may use the fingers as a most valuable instruments in these cases.

Examinations

It is better to have patient in the knee chest position since in this position the air which always passes into the rectum during examination will allow the tissues to relax and separate. This makes it possible for the operator to examine the entire rectal tissue. Many patients object to the above method, as it is both uncomfortable and embarrassing, which often makes it necessary to use some other position such as Simm's, etc. In many cases it is best to have the patient stand. Also in some cases to have the patient contract the abdominal muscles and bear down will aid very much. Often an anæsthetic is necessary, usually local is sufficient. A rectal suppository containing eucaïn or cocaine may be used. If the anaesthetic is to relax the sphincter muscles, use an ethylchloride spray. (This is considered best by Dr. Bigsby). Spray this on the tissues around the anus until a white frosty color appears on tissues.

Symptoms of Rectal Disturbances: Pain, protrusion, hemorrhage, constipation, diarrhea, discharges, itching, tumors, obstructions, straining at stool, skin diseases, altered feces, cachexia, auto-intoxication, flatulency, abscesses, fistula, fecal impactions, dilatation of rectum, sigmoid or colon, indigestion, change in temperature, pulse, and respiration, color of skin, odor of feces, induration of local tissues, altered condition of sphincter ani.

Constipation.

One of the most frequent and often the most distressing conditions with which you will have to deal in your office work is constipation in some form or other. It is a common condition and the majority of cases while causing considerable discomfort are generally easy to cure osteopathically. The term constipation in itself does not define specifically as the condition is more or less relative. It is a sluggishness of the intestinal canal characterized by a retention of, or insufficiency of feces, or an habitual difficulty in evacuation of the bowels.

Causes: These may be classified under (3) heads: the obstructing, deficient peristalsis, and sundry. Of the obstructing type any mechanical agency whether congenital or acquired may be the excitor, such as strictures or fissures. Again neoplasms or tumors of the polypoid variety, disease of the female generative organs, cystic ovaries, fibroid uterus or displaced uterus. Hypertrophy of the rectal valves is often a source of severe trouble. The rectal valves or the valves of Houston are three in number. They are crescentic shelf-like projections extending into the lumen of the gut, produced by the lateral flexions of the rectum.

The first is located about 4 inches above the internal sphincter on the left wall, the second, on the right wall, is the largest and is found about 1 to 1 1-2 inches below the first or at a level with the peritoneal reflection. The lowest valve is on the left wall an inch or so above the sphincter.

The valves are composed of a mucous membrane and stroma together with circular and longitudinal muscle fibers. Due to the shortness of the latter fibers, these infoldings of the rectum are formed which tend to retain the feces until sufficient for ejection (reflex).

Deficient peristalsis the result of disturbed physiology is found in impaired nerve supply. As the feces enter the colon and reach the sigmoid flexure, a reflex thru the second lumbar, causes a contraction of the longitudinal fibers of the sigmoid and a relaxation of the circular fibers of the rectum. A second reflex is then established thru the sacrals and transmitted to the brain centers (optic thalamus) whence the desire to defecate is experienced. In this connection, experience has taught that the continual failure to obey the impulse inhibits the reflex and a self-inflicted constipation may follow.

Interference with the secretions emptying directly into the intestinal canal also leads to perverted physiology. A deficiency of either the biliary or intestinal secretions which aid peristalsis may be a prime factor. An interference in the secretion of mucus by the rectal glands, as: atrophic proctitis, cellular atrophy or fibrous accumulations, tend to produce the condition.

Under sundry causes may be classified conditions in which constipation is a symptom rather than a cause, viz; general conditions as diabetes, nutritional and local diseases, ulcerations, hemorrhoids, hypertrophy of the anal sphincter and anal fissures.

In ulceration and fissures, the painfulness associated with defecation causes retention.

Symptoms: The usual symptoms are headache, drowsiness, aching muscles, insomnia, feverish, nervousness and digestive disturbances. The true symptoms are infrequency at stool or hard feces. Together with these a sallow complexion, circles about the eyes and shooting or spasmodic pains in the lower abdomen.

Treatment: The co-operation of the patient is a potent factor. Regularity in going to stool is necessary. Systematic habits will bring results. Daily baths arouse functional activity. A cold shower or plunge on arising followed by brisk rubbing. Use daily enema of plain warm water for a few days. Gradually leave this off after habit at stool is established.

The diet should consist of easily digested coarse foods. A daily menu as the following is good. The more variety the better. Pastries absolutely contraindicated. **MORNING:** Fresh or cooked fruits, coarse cereals, graham or bran mush. Hot water in preference to coffee. **MID-DAY:** Small amount of meat, vegetables, carrots, tomatoes, cabbage, spinach, etc. Whole wheat bread or bran gems. Bran is one of the best foods for constipation. It is also very nutritious. **EVENING:** The evening meal should be light. Graham mush or gems, sparingly of cooked meats. Drink lots of water while eating and during the day.

Osteopathic: Osteopathy is beneficial in all cases. It will aid in alleviating the self-inflicted conditions by a general toning up of the gastro-intestinal tract until normalized. The reduction of lesions in the lumbar region and up to the fourth dorsal including the lower ribs. Relax tissues in pelvis. Give thorough abdominal treatment, treat with a pinching motion the entire length of colon. Stimulate liver. If enteroptosis is present an

abdominal binder may be used. The Storm binder is the best on the market, but a better one can be made with a moleskin adhesive. Have hips of patient elevated so that the viscera can be placed in normal position. Then apply moleskin over patients abdomen and around body, lapping over spine. This belt should extend from the pubes to the level of the short ribs. Below the crest of the ilii the adhesive should be placed only upon the abdomen and not allowed to lap over spine as above.

The non-medical treatment for the other conditions is as follows: To relive hypertrophy of the anal sphincter divulsion either of the gradual or sudden method is employed. The elements of time or fear of general anesthesia being the reason for the two methods.

For gradual stretching, bougies of almost any make may be used with good results. If sphincteralgia is present the introduction must be slow. In the use of these instruments care must be taken not to cause excessive irritation. (Preference may be given to Pratt's graduated hollow metal dilators). Begin with the smallest about 1-8 inch and allow it to remain in the anal orifice until thoroughly relaxed. After a short interval introduce the next size. Complete relaxation should not be expected before 5 minutes. If the patient experiences no great difficulty during the procedure a larger size may be tried, however rather than wear out your patient, cease your treatment for the time to commence again within a few days or a week. It is better to do too little than too much, as the irritation will aggravate the condition and more trouble will be experienced in the following treatment. In ordinary cases the slow divulsion is accomplished in two weeks. The results are permanent unless there is some lesion elsewhere. An after treatment of the condition is necessary and in this way the predisposition is reduced. The bougies may be introduced occasionally to ascertain the real improvement. If the dilators cause much pain a eucain suppository may be used 30 minutes before aspiration or use cocaine.

The sudden method is of course the quickest and perhaps better. General anesthesia is required. The technic is easy and the operation is quick.

As soon as patient is under anesthesia, insert one thumb gradually until relaxation takes place then insert the other, wait a little, then gently spread the thumbs apart in all directions. The fingers should always be used as there is less danger of injury

when the operator can feel the tissues relax. The relaxation is easily perceptible and care must be taken to avoid rupture, hence proceed slowly with the dilatation. About 10 minutes are required for the operation. As an after-treatment the bougies may be employed to overcome any incident sphincter algia. The internal sphincters should be relaxed if necessary. In rare cases the above methods of relaxation do not give relief. Such cases are surgical.

For the operation a general anesthesia is best, but a local may be used. Eucain one half per cent is best for local. Inject about one ounce into tissue around the part.

Then pass a bistoury into the rectum above the internal sphincter and cut out through the anus severing sphincter ani at right angles. In the bottom of this cut place a piece of gauze soaked in a 10-15% ichthyol solution to prevent infection. Do not suture. The wound heals by granulation. Atrophy of the hypertrophied sphincter will result from this operation. The hypertrophy will not return after the muscle has healed.

In some cases the levator ani muscle is hypertrophied making it necessary to separate it from the coccyx. The valves of Houston are often enlarged. This can be remedied by cutting away a part of the valve with curved scissors or by use of valve clamp, which causes pressure necrosis.

Hemorrhoids.

Hemorrhoids or piles are varicosities of the lower rectum which bleed and have a tendency to protrude. These tumor-like masses are formed from the veins lying in the submucosa and may extend into the subcutaneous tissues and mucous membranes. According to their location hemorrhoids are divided into internal and external. The internal pile is located above the anal sphincter and is of the venous or capillary type. The external piles arise from the margin of the external sphincter muscle and are of the thrombotic or cutaneous type. The latter are always visible and appear as a cutaneous tag or clotted vein. The former only upon protrusion or strangulation.

Causes: Heredity may and does enter into the etiology. The male subject is more liable to this condition because of occupation. It is frequently found among men who are constantly on their feet and among hard workers who at times strain themselves. Sedentary habits and an inactive life are productive of

poor circulation allowing accumulation in the pelvic vessels. Enlarged prostate and disease of rectal wall. Age—generally from 25 to 50 years or during the most active time of life. In women the condition is associated with child-birth. Children are ordinarily exempt. An occasional case below twelve may be found.

Retrodisplacement of the uterus exerts pressure on the hemorrhoidal veins. Injury, ulceration and stricture have their influence but the most frequent cause of the internal type especially is constipation. Diseases of the liver and portal circulation produce retardation and tendency to dilatation.

Pathology: The Pathology is essentially a dilatation of the venous radicals of the hemorrhoidal vessels. A passive hyperæmia results in a thickening and coagulation of residual blood and causes a chronic inflammation. Hyperplastic thickening of the vessel walls, dilatation, and weakening, leaves a tumor of the internal type. The external or thrombotic type follows rupture or the terminal branches of the perineal veins around the anus. The rupture is a sequela to distention. The cutaneous variety with hypertrophy of the skin are present in the form of tags of skin hanging from the margin of the orifice. Often there is a combination of the two types called muco-cutaneous.

Symptoms: The internal hemorrhoids may rupture from a sudden increase of pressure or from ulceration to which they tend very readily. The hemorrhage varies in amount from a mere staining of the feces to a copious hemorrhage causing faintness of the patient. When the blood accumulates in the bowel the feces have a coffee-grounds appearance.

Ulceration is manifested by the sensation of throbbing and spurting of blood after defecation which generally results in much loss of blood. The pain which is secondary to the piles is due to ulceration, infection and inflammation. The irritation being so great as to cause sphincteralgia.

The patient gives a history of pain and blood at defecation and for some time afterwards. The protruding piles are colored tumors noticeable after defecation, then they gradually recede or must be pushed back. The sphincter contracts upon the slightest provocation. The capillary type presents neither tumor formation nor has it a tendency to protrude. It has a flat elevated patch of mucous membrane which can be reduced upon compression. The thrombotic type gives no symptoms unless irritated

then there is severe pain and itching. They range in size from a pea to a butter-bean and are dark bluish in color.

Diagnosis: The diagnosis is made from the everted rectum. This can be done thru the vagina or by direct introduction of thumbs or fingers in the male. The internal hemorrhoids in an early stage can be eliminated by digital compression. The chronic piles however offer resistance and further methods are necessary.

When the speculum is used it should be tilted and as you withdraw it the tumor will rise and project into the lumen. As the piles cannot always be found on palpation alone, the Kelly pad and enemata are used. The enema should consist of one pint of warm water. In expelling the same ask patient to bear down, the force causing the pile to protrude beyond the anus.

Treatment: The external cutaneous pile offers no pain or symptoms unless injured. Sitting for a long time causes irritations relief of which can be obtained by the use of cold or heat, or the application of soothing lotions.

Liquor plumbi acetatis.....	1 drachm
Tincture opii	1 drachm
Aqua pura to make.....	1 oz.

Saturate gauze and apply constantly until relieved. The lead acetate causes shrinkage while the opium alleviates the pain.

The thrombotic piles are found in plethoric or robust fellows. Constipation is the usual cause and severe pain the sever symptom. The non-surgical treatment is palliative. Ice, heat, the lead wash or 10% solution of cocaine on gauze.

As regards the internal pile if it be of the recent type continuous manipulation is advisable, 60 to 70 per cent curable by Osteopathic treatment. The palliative treatment consists in the use of astringents.

Powdered nutgall	1 drachm.
Vaseline	1 oz.

This ointment causes contraction of the tumor, forcing out the venous blood and maintaining good circulation. To check bleeding use nutgalls or alum-water.

Surgical treatment for the external cutaneous tag is accomplished under local anesthesia. There is little or no danger and the technic is simple. Hyperdermic injections of 1-2% of Eucain are used. Grasp pile with forceps, inject until it turns white. Do not be too hasty. When pile becomes white use curved sissors and cut close to the base. Stitch if necessary.

Technic for the thrombotic. Pierce pile with sharp instrument, evacuate blood clot and thoroughly cleanse the parts. Insert bistoury at base and slit it wide open, then curette well. Having scraped loose all the clot, locate the blood vessels and cauterize with carbolic acid 90% and pack with gauze.

Internal hemorrhoids are injected with a mixture of one part carbolic acid and two parts olive oil. Insert hypodermic at tip of pile allowing the needle to penetrate the center. (Inject until pile turns white). This treatment will reduce the small venous type but is not useful in the large infiltrated type. The latter do not react. A fresh solution must be used each time.

Select pile to be injected, insert the needle and inject from 5 to 10 drops in the center until the pile turns white. Don't use an excess of solution, 20 drops is the maximum. Never inject more than two piles at one time and leave an interval of a week between treatments.

The surgical treatment of the larger piles is accomplished under local anesthesia. Eucain may be used, however, injection of sterile water will produce sufficient anesthesia.

A large syringe is employed, (A two ounce veterinary is best) the pile selected and injected with as much as a half glass of sterile water, until pile turns white, then apply a heavy silk ligature as near the base as possible and cut off segregated part about a fourth inch from seat of ligature. Leave enough tissue so that the ligature cannot slip.

Osteopathic treatment is helpful in rectal diseases and should be directed towards the removal of the causes. In cases of internal piles it is beneficial to manipulate the rectal wall with the finger.

Proctitis.

Inflammation of mucous membrane of rectum.

Types: Acute, chronic, and mucoid.

Causes of Acute: Infections, gonorrhoeal, parasitic amoebic, diphtheritic. Obstructions: fecal impactions, strictures, tumors, fibroids, polyps. Injuries: improper use of enema, colon tube, or specula, also surgical operations. Foreign bodies: fish bones, buttons, etc. Diarrhea. Constipation. Inflammation of bowel, Higher up: Colitis, enteritis.

Symptoms: Pain: Sharp, burning, lancinating, intermittent. Frequent discharges. Diarrhea alternating with con-

stipation. Mucous membrane: red, swollen, congested, hemorrhagic spots tending to acute ulceration. In amœbic infection, deep seated ulcer.

Treatment: Put patient to bed. Give a liquid non-irritating diet; soups, milk, broth, eggs, baked potatoes, rice. No alcohol. No carbonate waters. No pungents, no pastries or highly seasoned foods. Must have daily evacuation of soft feces by enema. Irrigate rectum from 4 to 6 times daily, alternating with hot and cold water. From 1 to 3 times daily use antiseptic enema instead of plain water. For antiseptic enema use: 1 part listerine to two parts water, or 1% carbolic acid solution, or ichthyol solution 1-2 to 1 %. After each enema carefully dust one of the following antiseptic powders into rectum. Subnitrate of Bismuth 2 parts, and calomel 1 part, or Boracic acid 5 parts and iodoform 1 part, or equal parts of tannic and boracic acid. Never use an insoluble powder. Continue above treatment from one to two weeks.

Osteopathic Treatment is of great value in all these cases and should be given to build up resistance. Give special attention to lumbar and sacral areas.

Chronic Proctitis.

Types: Atrophic, Hypertrophic.

Causes: Constipation, infection, diarrhea disturbance of circulation.

In the **atrophic** the mucous membrane is red, congested and swollen with small ulcers. Tendency towards stricture from proliferation of connective tissue, usually around third sphincter. Chronic ulcerations are usually present around the stricture.

In the **hypertrophic** there is an accumulation of papillomata on the rectal mucous membrane. These papillomata are small elevations from hypertrophied glands. Mucous membrane is gray with pin point ulcerations. Manipulation of membrane with proctoscope, cotton plug, etc., will cause bloody ulcer.

Treatment: Same as in acute proctitis except the enemata should be an oily liquid (olive oil, etc.) given daily followed by an antiseptic dusting powder.

Mucoid Proctitis.

A chronic inflammation of the muscous membrane with a mucous exudate.

Cause: Mucoid colitis. Errors in diet. Constipation. Impactions. Infections of colon.

Symptoms and Diagnosis: Constipations, diarrhea, stricture, fecal impactions, shreds of membrane with bloody discharge which accumulated behind fecal material.

Treatment: Very difficult. Remove mechanical causes. Then through a proctoscope apply a silver nitrate solution 3 to 5% on cotton applicator. Apply to entire rectal membrane as proctoscope is removed. If the silver nitrate causes very much irritation bathe tissues with normal salt solution. Osteopathic treatment same as acute proctitis.

Rectal Polyp.

A pedunculated benign tumor protruding from rectal membrane.

Symptoms: Pain, bleeding, sense of protrusion.

Diagnosis: Palpation, hemorrhage, protrusion of polyp from rectum. If high up can be seen through proctoscope or colonscope.

Treatment: Removal without anesthesia. Ligate at base and allow to slough or clamp and allow to slough, or cut off with scissors.

Rectal Hemorrhages.

Symptoms: Escape of blood. Coffee ground or tarry stools.

Treatment: The hemorrhage may be controlled by pressure or by the use of heat and cold, or by styptic drugs. Pass a rubber tube wrapped with gauze into the rectum (the gauze will check the hemorrhage and the tube will allow the escape of gas, etc). Or a rubber bag may be placed around the tube and inserted into the rectum then inflated (This will cause pressure). Also the rectum may be packed with gauze, using an instrument for packing. A hot enema containing alum, tannic acid or ordinary vinegar may be given. If the blood is spurting out the ruptured vessel should be held with forceps and twisted or ligated.

Anal Ulcers and Fissures.

Anal ulcers and fissures are frequently associated with constipation and following the passage of hard feces. They are due to the rupture of the semi-lunar valves or the eversion of the rectum. The folds of mucous membrane are eroded and present elongated, spindle-shaped wounds. They may vary from 1-4

to 1 inch in length and 1-16 to 1-4 inch in width. They may be deep and extend to the muscle layers whence fibers may be seen.

Their most frequent location is on the posterior wall. They are very painful and usually have a sentinel pile which is a tag or strip of the membrane hanging from the lowest part of the rupture.

Symptoms: A burning sensation is experienced two or three hours after defecation. Hemorrhages may be present which are mostly capillary and are detected by staining of the limbs. There is pruritus ani, also inflammation and discharge (non-odorous). The pain increases with each defecation and patient soon becomes nervous. After these a loss of weight is noticed and an anemic condition developed. Sphincteralgia is very pronounced.

Treatment: Keep the bowels open using sterile water or soap-suds enemata. Mineral waters may be indicated. The results wanted can be quickly and positively obtained by softening the stools. In administering the enema, the nozzle should be heavily greased and carefully introduced along the anterior wall.

An anti-constipation diet should be given.

Rest in bed aids considerably in relieving the patient. For sphincteralgia use heat. Local antiseptic washing with lysol 1-250.

To lessen pain, cocaine or eucaïn 10% to 20% on cotton placed over painful fissure. A good ointment is made of starch paste and about 30 drops of laudanum. Cleanse wound and smear.

Cautery. Desensitize with cocaine. Cauterize with AgNO_3 . The stick form is best. Wash with normal salt solution. Cauterizing stimulates granulation tissue formation and cicatrization.

Fecal Impactions.

Fecal impactions are the result of a gradual or sudden accumulation of feces in the lumen of the bowel.

Cause: Constipation. Obstructive agencies such as tumors, retro-displacements, hypertrophied anal muscles, fracture of the coccyx or sacrum, hypertrophied Houston's valves, the continued use of high enemata (destroying peristaltic action), inflammations, adhesions, stricture and twist of bowel. They occur about 60% in the rectum, 15% in the sigmoid flexure and upper rectum, and 15% in descending, transverse and ascending colons. In children the cause is most commonly congenital defects.

Symptoms: The early symptoms may be alarming altho usually there is a gradual progression. The finding of a tumor along the bowel tract and gas indicate immediately an obstruction. There is increased peristalsis and lack of bowel movements. The time elapsing between movements may range from 3 or 5 days even up to weeks. Auto-intoxication together with sallow complexions, cold extremities, lassitude, peculiar odor to the breath (resembling typhoid) are constant symptoms. Nausea, vomiting and vertigo are reflex. Diarrhea, if present, is due to inflammation and passes around or through impactions.

Treatment: Remove the mass by the use of enemata. A good enema for these cases is the following:

Soap-Suds	1 pint
Turpentine.....	15 drops
Glycerine	2 oz.
Olive Oil	2 oz.

The enema should be repeated according to the size of the impaction. Large impactions may require enemata given 2 to 4 hours apart and continued for several days. It is necessary to use judgment in giving the enema. A rectal irrigator with double flow is best. The stream should be directed against the impaction if possible. In no case allow the fluid to pass above the impaction as it will cause the rectal tissue to fold over fecal mass.

A proctoscope and rectal spoon have been used to advantage in stubborn cases.

Osteopathic: If the condition has been present long enough to cause inflammation it is best not to manipulate. Use judgment in all cases.

Copious warm water enemata and manipulation of the sigmoid and colon will aid considerably in breaking up or loosening fecal masses. Surgical intervention is not ordinarily necessary.

Proplatus Ani.

The condition consists of a protrusion of the anal wall or an invagination of the intestine.

Pathology: The pathology is essentially a relaxed condition of the muscular wall. The extent of prolapsus varies giving rise to the terms partial or complete. The partial prolapsus occurs frequently in children. It presents a rounded mass of mucous membrane which extends to the internal sphincter or

may even occlude the anal opening. They are short ranging from 1 to 2 inches in length and bright red in color.

In complete prolapsus the walls project thru the anal opening and are from 3 to 6 inches in length. They are conical in shape and may be brownish, blue or black.

Symptoms: Pain and hemorrhage are always present. The sphincter algia causes the prolongation of defecation and constipation follows with digestive disturbances. The mass protrudes and remains. The sphincter ani muscle becomes relaxed or paralyzed.

Causes: In children, constipation is the chief cause, others are phimosis, difficult urination and congenital narrowing of the anal opening. In adults, the causes are constipation, tumors, and strictures, both congenital and syphilitic.

Treatment: Replace bowel and maintain it there. In children lay them on lap face downward, cleanse the mass thoroughly then follow this procedure by using a good sized piece of linen: grease the surface well with vaseline, place linen over the mass and grasp in the palm of the hand and push, guiding the direction with the fingers and the other hand. When replaced, use adhesive straps to approximate the buttocks thus maintaining closure of the anus.

The replacement in adults is usually easily accomplished. Use the knee-chest position and replace by taxis. To maintain in position place pad over the anal opening and bind with a T bandage. A pessary about 2 1-2 inches long has been used advantageously. During defecation the recumbent position must be assumed.

To overcome excessive relaxation cautery is indicated. Nitric acid is used. Dip rod in acid and draw across the mucous membrane for a length of 1 1-2 inches and make from 4 to 6 lines. Cicatrization and contraction follow reducing the relaxation.

Ischio-rectal Fistulæ.

Ischio-rectal or anal fistulæ are very common conditions attacking all classes of individuals and at all ages. They constitute about 50% of all rectal diseases.

Causes: Periproctitis is the most frequent cause. Inflammations around the rectum, strictures, rectal abscesses, syphilitic and gonorrhœal ulcerations. There are eight types.

The complex fistula has many openings on the surface and

in the rectum. The simpler or complete has an external opening and one in the rectum. The incomplete rectal or blind fistula presents but one opening in the mucous membrane of the rectum. The blind external has an opening on the surface with no internal communication. The horse-shoe fistula has two openings on the surface and one in the rectum. The other three are named from their relation to the surrounding structures thus: recto-vaginal, recto-vesicle, recto-vulvular.

Pathology: Fistulæ result from chronic ulcerations usually by the extension of an abscess. They are indurated and on palpation feel like a pipe-stem.

Diagnosis: This is ordinarily difficult. There may be present merely a sore, from which an abscess forms. There is a local pain, constant soreness if the part heals over which it most often does. There is some malaise and temperature. The sore on the buttocks is not very large. Begins as a red sore-spot then ruptures with an exudate. In the rectum it appears as a red papilla which on digital examination reveals a sharp projection. About 80% opens on the posterior wall. Follow the course of the induration and outline with a flesh pencil so that in probing one can the more easily follow the course and determine the extent of the fistula. Use speculum and a flexible probe and examine. If you find an inner opening then probe from within outward. Be sure to follow the cord-like tract else there is danger of puncturing the normal tissue and spreading the condition.

Treatment: Non-operative: Treat the proctitis with hot or asenemata tringents. Correct the constipation, overcome the sphincteralgia then treat the fistulous tract.

Cleanse the tract with peroxide of hydrogen and water as follows:

First week use 1-4 strength hydrogen peroxide.

Second week use 1-2 strength hydrogen peroxide.

Third week use 3-4 strength hydrogen peroxide.

Fourth week use full strength hydrogen peroxide.

Inject this into the fistula, using a large syringe with long aspirating needle. Keep this up every day for four weeks. Then use some substance that will irritate the fistulous tract and cause a formation of granulation tissue. The best thing for this purpose is a mixture of Bismuth subnitrate and glycerine (have the mixture just thin enough to be carried by the syringe). Use this from 4 to 7 times per week as long as it can be forced into the

fistula. Also carbolic acid 1-2%, silver nitrate, ichthyol, ergot, or ergotine may be used.

Operative Ligature: Pass a silk or rubber ligature thru the fistula from the external to the internal opening then tie it tightly and enforce with a lead clamp. It will gradually cut its way thru, forming granular tissue and healing behind the ligature. Injections of ergot or ergotine should be administered daily.

Curettage: Wire curettage is performed under general anesthesia. The openings are sutured and allowed to heal.

Strictures of the Bowel.

Strictures are secondary in nature to primary inflammations due to infection, except when they are the result of injury.

Causes: Strictures result mostly from cicatricial contractions following syphilitic, gonorrhoeal and tubercular ulcers. Mechanical injuries also come into consideration but are not as frequent as the above.

Symptoms: The symptoms are similar to those of constipation. The stools are ribbon-like, i. e., compressed from side to side according to the form of the stricture. Nervousness and sleeplessness are due to the irritation. They occur in the first 4 or 5 inches of the rectum.

Treatment: Gradual divulgence. Pass graduated rectal sounds or bougies into the stricture 3 to 4 times per week. Divulgence can also be had by the use of a rubber bag. Complete divulgence is accomplished under general anesthesia.

To check any hemorrhage grasp vessel with forceps and twist several times, or apply ligature. If there is slow oozing, use gauze pack. Cover rectal dilator with gauze and force into the rectum. Astringent enema of vinegar 50% to 75% or alum water may be used.

Index

—A—

Abscess, perinephritic.....	62
Amyloid kidney.....	62
Amyloid liver.....	63
Anal ulcers and fissures.....	109
Angina pectoris.....	98
Aortic stenosis.....	91
Appendicitis.....	76
Arteriosclerosis.....	98
Arthritis, deformans.....	85
In pneumonia.....	9
Asthma, bronchial.....	4
Cardiac.....	4
in nephritis.....	58

—B—

Bowel, obstruction of.....	8
strangulation of.....	81
twists of.....	81
Bradychordia.....	97
Bronchorrhea.....	3
Bronchitis, acute.....	3
chronic.....	3

—C—

Cancer of liver.....	63
of kidney.....	62
of stomach.....	73
Catarrh, chronic.....	82
Cerebral hemorrhage in nephritis	57
Chicken-pox.....	21
Cholera infantum.....	80
Cirrhosis, atrophic.....	63
hypertrophic.....	64
Cholecystitis.....	66
Collapse.....	54
Coma.....	54
Constipation.....	101
Croup (false).....	83

—D—

Disease of rectum.....	100
Diabetes mellitus.....	87
Diphtheria.....	20
Dysentery.....	45

—E—

Emphysema.....	4
Epistaxis.....	89
Endocarditis.....	90
acute malignant.....	90
simple.....	90
benign.....	90
chronic.....	91
Enteritis, acute.....	77
chronic.....	78
Enteroptosis.....	80
Erysipelas.....	10

—F—

Fecal impactions.....	110
Floating kidney.....	58

—G—

Gall-bladder and tubes,	
disease of.....	66
Gall-stones.....	67
Gall-stones, differentiation in	66-67
Gastritis, acute.....	71
chronic.....	71
Gastroseueorrhœa.....	74
Gonorrhœa.....	49
Gout.....	88

—H—

Hay-fever.....	84
Headache.....	46
Hemorrhoids.....	104
Hydronephrosis.....	61

—I—

Influenza.....	43
Intestinal disease of infants...	79
Intestinal obstruction.....	81
Ischio-rectal fistula.....	112

—J—

Jaundice.....	68
---------------	----

—K—

Kidney, Amyloid.....	62
cancer of.....	62
floating.....	58

—L—

Laryngismus stridulus.....	83
Laryngitis, acute catarrhal...	83
chronic.....	83
tubercular.....	84
syphilitic.....	84
Liver, amyloid.....	63
abscess of.....	65
acute yellow atrophy.....	65
cirrhosis.....	
atrophic.....	63
hypertrophic.....	64
congested.....	63
cancer of.....	63
differential table of..	65.

—M—

Malaria.....	22
differentiation:	
malaria and typhoid.....	23
and sepsis.....	23
and anemia.....	24
Measles.....	28
German.....	25
Meningitis in pneumonia.....	8
Mitral insufficiency.....	92
stenosis.....	92
Mucous colitis.....	78
Mumps.....	44
Myocarditis, acute.....	96
chronic.....	96

—N—

Nephritis, acute.....	55
chronic interstitial.....	57
chronic parenchymatous..	55
in scarlet fever.....	17
Neuralgia.....	46
Neurosis of heart.....	97
of stomach.....	74

—O—

Obesity.....	88
Oedema in nephritis.....	56
Otitis media in measles.....	29
in scarlet fever.....	17

—P—

Pericarditis.....	95
Pneumonia lobar.....	6
broncho.....	4
differentiation in.....	5
complications in.....	8, 9, 10
treatment of.....	9

Pleurisy.....	5
Proctitis, acute.....	107
chronic.....	108
mucoid.....	108
Prostate enlarged.....	89
Prolapsus ani.....	111
Pulmonary insufficiency.....	93
stenosis.....	93
Pott's disease.....	40
Pyelitis.....	59

—R—

Renal calculus.....	60
Rectal diseases.....	100
polyp.....	109
Hemorrhage.....	109
Rheumatism, acute articular..	18
chronic.....	86
Rheumatoid arthritis.....	85
Rhinitis, acute.....	81
chronic.....	82
Rickets.....	86

—S—

Scarlet fever.....	14
Smallpox.....	26
Stomach, cancer of.....	73
ulcer of.....	72
neurosis of.....	74
Stricture of bowel.....	114
Syphilis.....	47

—T—

Tachycardia.....	97
Tonsilitis, acute.....	68
chronic.....	70
suppurative.....	70
Tricuspid insufficiency.....	93
Tuberculosis.....	34
in measles.....	29
miliary.....	35
of joints.....	38
of bone.....	39
of spine.....	40
pulmonary, acute.....	38
chronic.....	36
treatment of.....	42
Typhoid fever.....	30

—U—

Ulcer of bowel.....	79
of stomach.....	72

—W—

Water, uses of.....	53
Whooping Cough.....	12



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