

PART III.  
MEDICAL MISCELLANY.

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TRANSACTIONS OF THE COUNTY AND CITY OF CORK  
MEDICAL AND SURGICAL SOCIETY\*.

(Continued from p. 239.)

SESSION 1857-58.

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JANUARY 13, 1858.

THE PRESIDENT, DR. R. CORBETT, in the Chair.

*Case of Popliteal Aneurism.* By DR. S. HENRY HOBART, Medical Officer, Cork Dispensary.—“ Anne Foley, aged 40, was admitted into the North Infirmary, under my father’s care, August 12, 1855, with a tumour behind the knee. She stated that about five months previously she felt a very severe pain in the ham, which continued to give her great uneasiness; it was not until this had continued for a month that she first observed a hard lump, about the size of a walnut, behind the knee; she kept poultices to this for about two months, in hopes of ‘bringing it to a head,’ during all which time she could not rest day or night with the intensity of the pain. The tumour meanwhile rapidly increased in size, and the leg and foot became greatly swollen, the ankle being at one time more swollen than the knee. She now gave up the poulticing, thinking it did not agree with her. Soon after this she fell forward on the floor as she was trying to hobble through the room; and afterwards confined herself to bed for fear of getting any more falls; this fall (as she says) strained the veins, particularly one running up the thigh, which became hard and black; this appears to have been the biceps, as there is a hardness along the course of that muscle at present. One night she noticed, rather suddenly, a remarkable sensation in the limb, as if the whole swelling was being drawn up from the ankle

\* These Reports have been furnished to us by Dr. S. Henry Hobart, Secretary to the Society.—ED.

into the knee; from this time the swelling about the foot rapidly disappeared, but the tumour behind the knee increased considerably for some days. Since then, however, she thinks the tumour has rather diminished in size, and it is not quite so painful as at first. 8 o'clock P. M. Complains of desperate pain all about the knee, worse than any she has experienced for a long time past. She was given an anodyne, and the part was directed to be stuped and poulticed.

"August 13th. Got some relief by the draught, but the poultice only aggravates the pain; says the tumour has increased since yesterday; draught to be repeated this evening.

"14th. She thinks the tumour is much increased since admission, though no change can be perceived by others.

"15th. The case was very closely examined to-day; the tumour is principally situated above the knee-joint on the posterior aspect of the femur; a process of it seems to extend below the knee deep into the upper part of the calf of the leg, and another upwards along the course of the biceps muscle nearly half way up the thigh; the principal mass can be well defined at its lower margin, which is round and prominent; above, its extent is not so clearly marked, and laterally it seems to embrace the entire of the circumference of the limb; on touching it lightly there is no sense of fluctuation, but on pressing heavily with the thumbs placed on opposite sides of the tumour, an idea is communicated as if of deep-seated fluid, tensely bound up; the surface is smooth, and slightly polished from the stretching of the skin over it; the circumference of the limb at the largest part of the tumour is  $16\frac{1}{2}$  inches.

"16th. Tumour looks larger, but measures the same as yesterday; some relief from the pain has been experienced from light friction with oil; there seems to be a sensation something like pulsation, but it is so vague and unsteady that it appears to be caused by spasmodic twitches of the hamstring muscles.

"18th. An exploring needle was now introduced; no pus was found; blood alone of a dark colour coming away in the groove of the needle; the sensation observed on the 16th, so like pulsation, is rather more obvious to-day, but still is very obscure.

"19th. Pulsation rather more obvious, and occasionally appears for a few seconds to be synchronous with the heart's action; then it seems as if the pulsation had been in the fingers themselves, or as if the eye had been deceived; again to appear more real for a little time; and again to become obscure. On applying the stethoscope, no sound can be heard, but occasionally the instrument feels as if it were throbbing against the ear; patient is greatly relieved by the needle puncture of yesterday. Some oozing has occurred from the puncture, of dark bloody-looking matter.

"20th. Had a severe rigor last night; pain worse in the tumour; complains also of headach; pulse 160, and feeble tongue foul. She still has a sort of tremor over her; the tumour is decidedly softer, and has more the feel of fluid than before. The most careful examination now fails to detect any trace of pulsation, but this might be

expected from the changed state of the case. On the one hand, the softer and more flaccid state of the tumour is less suited to cause the circulation in the tips of the fingers to deceive; while at the same time the rapid and feeble circulation is less likely to communicate true pulsation to the tumour. She was now given a mixture containing aromatic spirits of ammonia, half an ounce; carbonate of ammonia, two drachms; camphor mixture, twelve ounces: to take a tablespoonful every second hour.

"21st. Febrile condition much relieved; the discharge from the puncture had been stopped yesterday; has returned; it looks like decomposed blood much altered in appearance. A consultation was held to-day to consider the nature of the case; no pulsation could be detected in any part of the tumour, but one gentleman perceived a slight bruit at its inner side. She was immediately recognised as having been in the South Infirmary, when the tumour was much smaller, at which time no pulsation was observed in it, and it presented rather the appearance of an enlarged gland, or of some form of encysted tumour, than of anything else. One medical man, who had frequent opportunities of examining the case in its early stage, states that from his recollection of it at that time, he is quite satisfied that, 'whatever it is, it is not an aneurism.' A large trocar and canula was introduced, which brought away a pretty free discharge of very dark blood, but this did not come *per saltum*, nor as if from a sack containing fluid blood,—was rather a free oozing, such as might be poured out by a very vascular part.

"The question of the nature of the tumour and the treatment to be adopted was now considered; and the opinions were divided between aneurism and fungus hematodes. The evidence of all who had seen the case in its early stage was strong against aneurism; moreover, the woman herself was never annoyed by pulsation in the tumour; and the vague and uncertain nature of the pulsation—if such it could be called—occasionally appearing to exist, was by no means sufficient to warrant a positive diagnosis of that disease; and all the symptoms might easily be caused by a highly vascular growth, such as fungus hematodes. The pale, unhealthy countenance of the woman also made her appear a likely subject for malignant disease. On the whole, therefore, it was thought advisable to postpone any interference for a short time, and to watch for some symptom which might render the nature of the case more clear. On sounding the woman, however, as to her willingness to submit to such operative interference as might be deemed necessary, she showed the most obstinate determination to have nothing done; seemed quite enraged at the mere insinuation of such a thing, and was with great difficulty induced to remain in hospital, by assuring her that nothing would be done without her full consent.

"23rd. Feverish again; pulse 130; pain severe in tumour; the discharge from the puncture has ceased to flow; complains that what was done to her yesterday (i. e. the introduction of the trocar), 'has stopped the discharge and injured her greatly;' the tumour is softer

and flatter; fluctuation is now quite evident, but there is no pulsation. She is excessively irritable, always grumbling and complaining.

"24th. Slight discharge has again occurred from the needle puncture, which has now more unmistakably the appearance of blood; poulticing gives relief for about an hour after it is applied; fever rather less.

"25th. A copious discharge of the same dark bloody stuff has been coming from the needle puncture; the trocar wound is quite healed, nor did matter at any time escape from this after the canula was removed. The discharge now coming away is of a most offensive smell, not resembling that from a malignant sore, nor from diseased bone, but more like that of a decayed human kidney; this poured out, on altering the position and sponging the part, as freely as matter from an abscess; and a small, but very soft clot, formed in the face; nothing like pus can be detected in the discharge. The tumour is greatly reduced in size, and is quite soft; no pulsation can be felt.

"27th. Still feverish; pulse 120; pain in tumour very severe.

"30th. Much better; fever almost gone; discharge becoming purulent.

"31st. A good deal of pain; discharge copious, but is now composed of about equal parts of pus and the same dark bloody matter; smell not so offensive.

"September 2nd. Discharge more purulent, but very abundant.

"4th. Profuse arterial hemorrhage set in at 2½ A. M., and before assistance could be got the patient was dead.

"*Sectio Cadaveris*—On cutting through the integuments over the popliteal space, we found a large clot of very dark colour occupying the site of the tumour; this was about the size of a man's fist, and was quite soft, as if recently formed; some ill-conditioned pus also escaped, but on extending the incision upwards and downwards, a great quantity of a mixture of pus and blood escaped; this had burrowed downwards to the lower third of the leg, and upwards to about the middle of the thigh. On evacuating the clots and pus, a round tumour, about the size of a billiard-ball, was seen lying near the bone; this was tolerably firm at its upper part, where it was whitish, and seemed like partially organized fibrine, but the lower portion was soft and dark-coloured, being a sort of intermediate substance between the fibrinous appearance of the upper portion, and the soft clots that surrounded the tumour. The femoral artery was found to be perfectly healthy in the middle of the thigh; this was cut across, and the lower portion removed, together with the entire contents of the popliteal space. On now passing a probe down the artery, it suddenly stopped near the tumour, and on slitting down the vessel to the point of obstruction, a papilla-shaped piece of fibrine was seen protruding into the side of it next the tumour, into which a probe could be freely passed at either side of the papilla. The greater part of the sack of the aneurism, as it now

undeniably proved to be, was strong, and resisted the pressure of the probe; but at the lower part, where it was dark-coloured and soft on the surface, it offered no resistance, and the probe passed out readily through it. The artery could not be traced along the back of the tumour, but terminated in a little cul de sac at the point of communication. On slitting open the tumour a cavity was found large enough to contain a hen's egg; this was smooth on the surface, and its lining membrane was perfectly continuous with that of the artery; it was about half filled with a sort of coagulum, which was rather tough on the surface, but which seemed to be very soft, or to contain fluid in its centre; the upper part, near the communication with the artery, was much more dense than the lower part, and terminated in the papilla of fibrine already referred to, which projected into the artery."

DR. FINN communicated the particulars of the following case, and exhibited the pathological specimen:—

*Case of Abdominal Aneurism.*—James Barrett, aged 30, car-driver, was admitted into the North Infirmary on the 7th December, 1857. History of case:—His habits have been intemperate till a very recent period, but his health had been uniformly good till about four years since, when, for the first time, he began to suffer from pain referred to the loins. This pain, which was comparatively slight at first, gradually increased in severity, and compelled him after the lapse of a year to apply for medical advice at the North Infirmary, into which he was received on the 17th October, 1854. At this date the existence of aneurism was first recognised. Having remained on this occasion forty-four days in hospital, he was dismissed, greatly relieved. He was readmitted on the 5th January, 1855, and remained in hospital forty-nine days. On leaving he immediately resumed his usual occupation; in this occupation he had been almost uninterruptedly engaged during the interval between March, 1855, and the date of his final readmission to hospital on the 7th December, 1857.

*Present Symptoms.*—Dull lumbar pains; pain of a more acute character referred to the left ilium; augmentation of pain in both situations towards night. A sense of soreness in the epigastrium and abdominal viscera; in the epigastrium was observed great intolerance of pressure; in the erect position he felt as if the back were opening. Countenance sallow, and expressive of anxiety; age apparently more advanced than that recorded. Abdominal walls unusually tense; and considerable turgescence of the superficial veins. Tongue clean, costive habit; urine in appearance natural, specific gravity 1017. Pulse in recumbent position 66, communicating a peculiar thrill to the finger. In the left hypochondrium was discovered a tumour of moderate size, communicating a slight impulse to the hand; but the intolerance of pressure already noticed precluded the possibility of tracing its outline. The heart's

sounds were normal; but its impulse was somewhat augmented in force. Auscultation revealed a loud bellows murmur in the epigastrium, which was distinctly audible for about three or four inches downwards to the left of the mesial line; the pitch of this murmur was increased by deep-seated pressure. In the erect position it was barely perceptible; but on the posterior part of the trunk it was inaudible in any position.

December 30. Pulse 108; passed a restless night; suffered from excruciating pains referred to the left side and hip; complained of nausea; pain most severe towards evening.

December 31st. Pain has increased in intensity since last report; more particularly in the left ilium.

January 1st, 1858. Pulse 84; pain has in some measure abated since last evening, having yielded to anodyne draughts composed of Battley's sedative and chloric ether, a combination nearly similar to that employed by Dr. Law with so much benefit in such cases.

January 4th. Pulse 102, feeble; complained of pain in the cardiac region and left hypochondrium. This pain supervened quite suddenly, and was referred on the occasion of the clinical visit to extravasation of blood from the sac into the cavity of the pleura.

January 6th. Pulse 108, feeble; suffered since last visit from the most excruciating pain in the left chest, anteriorly and posteriorly; has had no sleep; cold perspiration for the entire night.

January 8th. Passed a tranquil night, the pain having been relieved by sedative draughts, repeated at short intervals; died suddenly this morning at 7½ o'clock.

The autopsy took place about four hours after death. On raising the sternum some blood escaped from the left pleura. This cavity contained a very large quantity of blood, generally in a fluid state, with a few small coagula. The abdominal aorta was the seat of an aneurism of considerable size, which involved about four inches of the vessel, having commenced where it passed between the crura of the diaphragm. At the proximal side of the sac, above the cœliac axis, and on its posterior aspect was observed a rent of about half an inch in width, opening into the left pleura; through this rent the more fluid contents of the aneurism escaped. The distal end was filled with solid fibrinous coagula. The sac was united by the most rigid adhesions to the corresponding vertebræ. The bodies of four vertebræ (the last dorsal, and three lumbar) had undergone destructive ulceration to a considerable extent, and communicated a most painful sensation to the fingers when moved along the unequal surface thus produced. The thoracic and abdominal viscera presented no deviation from the normal state.

*Remarks.*—The experience of this case would appear to indicate that a very considerable duration of life is compatible with abdominal aneurism, a period of thirty-nine months (less nine days) having intervened between the first recognition of the disease and its fatal termination in January, 1858; and the lumbar pains com-

plained of in the autumn of 1853 render it highly probable that the aneurism dated its inception from this period. He had been altogether 125 days under observation.

Pain played a prominent part in the history of the case. The pain, which was of the intermittent kind, was characterized in the manner described by Dr. Law<sup>a</sup>, by a nocturnal paroxysm of great severity; it was sometimes referred to the last dorsal and lumbar vertebræ; at others to the abdominal viscera; but more uniformly to the left ilium, in which latter situation it simulated hip-joint disease. The migratory character of the pain impaired, however, its diagnostic value, and no reliable conclusion could have been deduced from a *general sign*, presenting the succession of changes above noticed. A remarkable fact in connexion with this symptom was its suspension for an interval of nearly three years, during which he had been engaged in his ordinary employment. Supposing the pain to have resulted in the first instance from erosion of the vertebræ, consequent upon the aneurism, how reconcile the absence of this symptom for the long interval referred to, with the probably progressive character of the pathological changes which called it into existence?

The importance of the *physical signs* was exemplified in this instance, the existence of aneurism having been recognised at an early period. Was the influence which the erect position exercised in modifying the auscultatory phenomena to be ascribed solely to hydrostatic pressure? The altered relations of the surrounding viscera to the aneurismal sac, and the tension of the abdominal muscles, might have contributed, at least in part, to the result.

PROFESSOR O'CONNOR related several cases of *Gangrene of the Lung*, and concluded with the following remarks:—

“In addition to the cases which I have now detailed to the Society, it has been my lot to see, from time to time, a considerable number of instances of this affection, more than could possibly fall under the notice of any one physician, if he had not been engaged, as I was, for several years in conducting the largest workhouse hospital in Ireland, and that during a period of famine,—I will take the liberty of laying before you my experience under the heads of the cause, diagnosis, and curability of that disease.

“Under the first head I have to observe, that never, except in the case of Parrell, have I found pulmonary apoplexy precede the gangrene, though it ought to be expected to result from this cause, where the lung tissue is much injured, and the circulation in the part obstructed by the effused blood acting as a foreign body. Still, how frequently do we find extensive disorganization of the lung arising from this cause, without gangrene following. The fact that hæmoptysis so frequently succeeds gangrene, may occasionally mislead in tracing the history of the disease. Tubercular disease in the

<sup>a</sup> The Dublin Journal, first Series, vol. xxii. p. 389.

lungs seldom gives rise to gangrene. This might be readily inferred from the seat of the latter disease being most frequently in the inferior part of the lung, where tubercle is seldom found in the earlier stage of its development. The only way in which it may arise from this cause is, where tubercular infiltration suddenly seizes on a large portion of a lung, not only interrupting the respiration in the diseased part, but also arresting the circulation. In such cases, after remaining some time in a solidified state, the affected portion of lung may run into rapid suppuration or gangrene. In this manner I have seen nearly the entire left lung of a child, eight years old, after remaining some days in a state of solidification resembling pneumonia, suddenly pass into gangrene, producing a fœtor so abominable that it was impossible for even the parents to remain long in the room in which the child was confined. That gangrene is rare, as a consequence of pneumonia, is admitted on all hands. Even where the lung runs into suppuration in such cases, the expectoration is rarely fœtid; and where such is the case, the fœtor is different from that of gangrene. The gangrenous eschar is, in most cases, very circumscribed at the commencement, and in this respect differs in character from pneumonia. A rusty-coloured sputa frequently accompanies the disease, which is the result of consecutive inflammation in the surrounding part of the lung. We are then led to the conclusion, that if gangrene results from inflammation of the lung, it is inflammation of a special kind,—such, it may be, as carbuncular inflammation in the areolar tissue of external parts. Its rapid spread through a lung previously healthy, when once established in any point, only corresponds with the character of gangrene in other parts of the body. The great prevalence of this disease, at the time when scorbutus was epidemic amongst the humbler classes during the years of famine, and for some time subsequently led me to the conclusion that the condition of the blood in this latter affection predisposed to, if it did not produce, gangrene of the lungs. The rapid destruction of the eyeballs in ophthalmia, and the frequent sloughing of the penis in gonorrhœa during the same period, was, in my mind, attributable to the same cause. We can readily understand that the alteration of the blood, peculiar to scorbutus, existed in many cases prior to the ordinary external manifestations by which it is generally recognised, in the same manner as we know that the syphilitic poison lurks in many constitutions for years, without ulcer or eruption to manifest its presence.

“The diagnosis rests partly on the fœtor from the breath and expectoration, and partly on the stethoscopic phenomena. Amongst other writers, Dr. Stokes especially refers to the fact that fœtor of the breath is frequently found in cases of chronic bronchitis, scarcely distinguishable from that of gangrene. Still, with the greatest respect for so high an authority, I cannot help thinking that the fœtor of gangrene is entirely *sui generis*, and scarcely possible to mistake for any other smell, however disgusting. A means of distinguishing them on other grounds is also presented in many cases



thus. The fœtor in a case of circumscribed gangrene (that alone in which any difficulty of diagnosis could exist) is sometimes absent for hours, till a fit of coughing brings up some of the offending matter; turning on the side, or moving in bed, may produce this fit of coughing. In some instances the patients stated that they found the fœtor on their palate before the coughing came on, which soon poisoned the whole atmosphere of the room. Nothing could exceed the violence of the paroxysm of coughing in these cases and in nearly all cases of gangrene, the vapour from the diseased part being a severe irritant to the mucous membrane of the larynx and trachea.

“In circumscribed gangrene I never could discover the signs of a cavity in the earlier stages, but in every instance found some one part of the lung over which there was dulness on percussion, and an absence of vesicular breathing not replaced by bronchophony or bronchial respiration, but by a few subcrepitant râles heard on forced inspiration, more like a sound caused by the forcible displacement of the parenchyma of a solidified lung than if produced in either bronchi or air vesicles. Most writers speak very despondingly of the curability of gangrene of the lungs, and some think such cases utterly hopeless. In this opinion I do not entirely share. Two of the most marked cases I had ever to treat recovered perfectly. One of them had since to undergo a very searching examination for the purpose of effecting an insurance on his life; and the other has been under my observation for a period of five years since his illness, and enjoys perfect health. A third case died of another affection more than twelve months after I had diagnosed the existence of gangrenous eschars in his right lung, and I had subsequently an opportunity of showing this lung to the Society, containing two cavities with walls perfectly organized, and evidently prepared to cicatrize if the patient had lived much longer.”

JANUARY 27, 1858.

THE PRESIDENT, DR. R. CORBETT, in the Chair.

DR. S. HENRY HOBART exhibited the brain of a man named Daniel Connor, who had died in the Lunatic Asylum a few days previously, during an epileptic seizure. The man was admitted to the Asylum on the 14th of July, 1857, having then come from the Fermoy Union Hospital; he had some time previously received an injury of the head, for which he entered that hospital; from the immediate effects of the injury he soon recovered, but he was seized at intervals with epileptic attacks, which were so frequent as to render him unfit to obtain a livelihood for himself; and as those attacks showed no disposition to cease, he was admitted into the Cork District Lunatic Asylum. Here the fits continued to be both severe and frequent; during the intervals, however, his mental and bodily powers were not materially impaired, and he was able to make himself useful in many ways in the Asylum.

On the 24th of January he was seized with an attack more violent than usual, in which he died. On examining the brain, twenty-six hours after death, it was found to be remarkably healthy in its structure generally; there was no congestion nor appearance of inflammation in any part; but the right posterior lobe was greatly atrophied, indeed it appeared as if about half the portion of brain corresponding to that lobe had been absorbed; this had principally taken place on its upper aspect and appeared to have been affected partly by dilatation of the posterior cornu of the lateral ventricle, and partly by absorption of the external surface of the brain; for the fossa in the skull, corresponding to this lobe, was in a great measure filled up, showing that this portion of the brain was not as prominent as the same part on the opposite side; while the lining membrane of the ventriclé could be seen distended with fluid, the layer of cerebral matter separating it from the arachnoid being very thin, and over a small extent being altogether absent, so that the fluctuation of the fluid contained in the cornu of the ventricle could be very distinctly perceived on the surface. On cutting into the ventricle a large quantity of fluid escaped, and a cavity was exposed more than sufficient to contain a large walnut. The structure of the brain was found to be decidedly firmer than the average, and such as would be peculiarly well adapted for anatomical demonstration.

THE PRESIDENT then brought the following case of *Hemorrhage from the Bowels* before the notice of the Society:—

“Mrs. —, aged 26, of petite, fragile form, generally healthy, and of active habits, mother of four living children (having had three miscarriages), was confined in July last without medical assistance. Her labour was protracted, and the placenta, after the birth of the child, was retained for over six hours. Pending the retention there was a considerable hemorrhagic drain, but not such as to cause alarm to an old ignorant midwife. Her husband, however, feeling uneasy about her, summoned two medical men resident in the neighbourhood, but the lady refused to see either, having an objection to male interference. After some time the placenta was thrown off, followed by considerable hemorrhage, which caused much prostration. However, at the end of three or four weeks, the patient was able to go about, still feeling very weak, but would not have medical advice. She did not suckle her infant, and about the end of six weeks after recovery there again occurred considerable hemorrhage, which has to the present continued to increase every fourteen or fifteen days. On the 14th of last November she arrived in town, a journey of twelve miles, when I was called on to visit her. Having previously known her, I was struck with her exsanguine and leucophlegmatic appearance, and on inquiry I then found, in addition to the above history of her symptoms, that, for the fortnight preceding, she had been suffering from profuse intestinal hemorrhage; and on my visit the servant showed me a *pot de chambre* containing upwards of four-

teen ounces of blood, passed a few minutes before I arrived. This was unmixed with feculent matter. The servant said to me:—‘Sir, I only wonder, if she were a cow, she could bear the loss of blood for the last fortnight.’ There was no fulness of the abdomen, no tenderness on palpation or pressure, the only symptom complained of being a pain at the epigastrium, immediately preceding the action of the intestines, which pain subsided on the passing of the blood. The pulse steady at 72, but debile; tongue clean and moist; appetite capricious; occasional thirst; chilliness of surface; urine in good quantity, and normal. Pending this hemorrhage from the bowels, the uterine flow was arrested. I at once directed rest in the recumbent position, farinaceous diet, and commenced giving a mixture of acetate of lead and opium; of the former of which she took four scruples, and of the latter a drachm and a half in divided doses, within eighteen hours, but without benefit. I then changed to gallic acid, five grains every two hours (with an opium and alum pill at bedtime); of which she took within twenty-four hours 100 grains. Still the hemorrhage continued to the amount of some twenty ounces per diem, a quantity which the patient and her servant looked upon as trivial in comparison to former losses. Finding that on one or two occasions small portions of pulpy feculent matter passed down with the blood, I ordered a mixture of four ounces of infusion of roses, four drachms of sulphate of magnesia, and a scruple of alum: of which half was to be taken immediately, and the remainder after six hours if the bowels should not act. The whole had been taken, and at my evening visit I found a large dejection of greenish fæces, semisolid, and altogether free from hemorrhage. This was on the fourth day of my attendance. The hemorrhage altogether ceased, and I sought to restore the tone of stomach and system generally; but, strange to say, within a week of the yielding of the intestinal bleeding, that from the uterus reappeared, and not of a catamenial character. However, it lasted only a few hours, and ceased.

“The patient was, fortunately, of an active, lively disposition, although of delicate frame; and, finding herself so much better, she determined on returning home, which she did about the 2nd of December. She would not permit any examination of the uterus, nor could I persuade her to use a lavement for the relief of the bowels; so that, although so far relieved, I should much fear there will be recurrences of hemorrhage; and, in truth, I feel at a loss to account for the source of hemorrhage from the bowels. She is at present taking sulphuric acid three times a day, and when I next hear from her I shall report progress to the Association.

“Calling to recollection the case of hematuria which on a former occasion I detailed to the Association, I was struck with the failure of the usual anti-hemorrhagic remedies administered, as well in it as the case now brought forward; and therefore it was that I decided on a trial of the alumino-magnesia draught, which in the present, as well as in the former, seemed to make the best impression on the hemorrhage. Whether to attribute the result in the one or

both to the 'post hoc, propter hoc,' I cannot take upon me to say. It may have been that the astringents previously administered had, by the time that the saline astringent aperient had been given, commenced their special action; but there can be little question that the favourable result was *after* the alumino-saline draught in both. Since the 2nd December I have seen the patient twice or thrice for a day or two each time, and on each occasion the uterine hemorrhage was the only cause of complaint, and as one of a chief means of at least moderating this flow, I could not persuade my patient to observe *perfect rest* in the recumbent position; so far from it, that the theatre was one source of her recreation. How she has so far stood up against the losses which she has suffered, is to me extraordinary. There may be, for all I know, a very sufficient cause for this uterine hemorrhagic tendency; but without a satisfactory examination it is impossible to account for it. I do not look upon the patient as having a hemorrhagic diathesis; nor, on inquiry, can I ascertain that there is foundation for forming such an opinion. I directed partially cold bathing, application of cold over the hypogastrium, and recommended vaginal injections of cold fluid, which latter would not be listened to. I also gave sesquichloride of iron, and regulated the state of the bowels; but, up to a fortnight ago, without making an impression, further than the patient's stating, that although the hemorrhage recurs, it is less abundant, and of shorter continuance. I have not hesitated to assure her, that unless the cause can be arrived at, and if possible remedied, I look upon her life as a precarious one; as these symptoms, so long existent, must necessarily terminate in a break-up of the constitution, probably producing dropsical effusion into some of the vital cavities. Within the last few days I have had a letter from this lady describing urgent dyspeptic symptoms, but not alluding to the hemorrhage.

"P. S.—The intestinal hemorrhage has not recurred, and the uterine has been arrested by pregnancy."

*Case of Cancer of the Œsophagus.* By THOMAS GREGG, M.D., Surgeon to the South Infirmary.—"Denis Flynn, aged 60, was admitted as an intern patient into the South Infirmary, January 8, 1858, for supposed stricture of the œsophagus. I found it very difficult to get much information from him as to the previous history of his disease, but the following was obtained:—He has always been a man of very temperate habits; he never had received any injury to account for the disease. He first noticed, about twelve months prior to his admission into hospital, a slight burning sensation, as if the food, while passing through the œsophagus, was too hot; this ceased immediately after it had passed into the stomach; this sensation was so transient and trivial in its character that he did not apply for any advice; it continued without getting worse for about three months, when he first found that the food suddenly stopped about half way into the stomach, and required some fluid to get it down; this check was only occasional, and was generally

experienced at first during the commencement of the meal, for when the food passed into the stomach no further difficulty existed during the progress of the meal; however, it steadily increased until the difficulty of swallowing any solid food was very urgent. During this time he had been under the care of a medical practitioner in the country, who treated him, with occasional partial relief. About eight months after the commencement of the attack, an instrument was passed into the stomach, which he states always gave relief for some days, and was introduced without difficulty; this has not been attempted for the last fortnight prior to his admission into hospital. His present appearance is that of a man in the last stage of phthisis, very much emaciated; countenance pale, and expressive of much anxiety; tongue clean; fauces and pharynx very pale; the latter has some varicose superficial vessels ramifying on its posterior surface; he says he can swallow better sometimes than at others; his sleep is very much disturbed; pulse quick and weak; slight cough; breathing stridulous. On the application of the stethoscope no disease of lungs was discoverable; vesicular murmur audible over both; the stridulous sound was conveyed to the ear evidently from the trachea; there was some soft bronchial rale on the posterior surface at the root of the lungs; no bruit of any kind could be detected; the impulse of the heart was stronger than natural, but no valvular disease existed; he complained of pressure over the second to the fourth dorsal vertebræ giving him much pain. I now tried to pass a bougie through the œsophagus, but could not get a small one farther than the commencement of the œsophagus; failing, I did not attempt further, although he said a moderate-sized one had passed easily before his admission.

“A question here arose, what could account for the stridulous breathing? That it was caused by some pressure there was no doubt; and more than likely by some tumour in the thorax; none could be detected in the throat; and that it was not aneurismal, the stethoscope proved. The post-mortem, which will be detailed, fully shows the true cause. I must confess I did not suspect malignant disease of the œsophagus; except the occlusion, there was no symptom to indicate such an amount of disease as absolutely existed. The principal treatment consisted in antispasmodics, opium, attention to the alimentary canal, nourishing fluid diet. About a fortnight after his admission he complained of pain in the right side, which was removed by counter-irritation; and on the visit of the morning of the 18th there was considerable bronchitis over both lungs, and he died rather suddenly the same evening, after having taken some fluid, as if suffocated.

“*Post-mortem*, eighteen hours after death.—Body very much emaciated; rigor mortis very complete. Upon opening the cavity of the thorax, and removing the sternum and anterior portion of the ribs, the lungs rose out of the cavity, as if they were too large for the space; they were adherent at either side to the costal pleura by old standing thick deposits of lymph, and all the anterior

surfaces were thickly coated over with the same; a considerable quantity of serum occupied each pleural cavity, as well as the pericardium, and seemed to be the cause of the lungs being pushed so far forward. On the removal of the parietes, the posterior surface of both lungs was found much congested, and the right lung, particularly at the root, was of a scirrhus hardness; the heart and large vessels were quite healthy. Upon attempting to remove the œsophagus I found it firmly bound down to the bodies of the second, third, and fourth dorsal vertebræ, and it was with some difficulty I could remove it; the lining membrane of the bodies of these bones seemed to have partaken of the same disease as the œsophagus, the coats of which answering to this part (about four inches altogether) being completely disorganized. I have removed this for the inspection of the members of the Society; it will be perceived it is quite cancerous, and now we can account for the stridulous breathing; the trachea above its bifurcation is firmly adherent to the hardened and thickened coats of the œsophagus, and a considerable opening, by ulceration, has taken place between one tube and the other; I think this opening was the immediate cause of the sudden death of the man; by allowing a free communication with the lungs, the fluid he had attempted to swallow, more than likely, passed in, and blocked up the air-passages. I should have mentioned before, there was some fluid found on cutting into the lungs; the remainder of the œsophagus and stomach was quite healthy, and no further trace of cancerous deposit could be detected.

“I do not at present remember to have seen a similar case recorded where ulceration had taken place between the œsophagus and trachea. The great extent of disease shows us that we ought to be exceedingly cautious in the use of bougies; the contraction is so great that a common crow-quill will scarcely pass through it, and it is difficult to imagine how an ordinary-sized bougie could have been passed into his stomach six weeks prior to his death. As far as treatment is concerned in these cases, I fear very little can be done except to palliate; and fortunate it is for the profession and humanity that such cases are of rare occurrence.

“Are there any symptoms whereby we may be guided in forming an opinion as to whether there is cancerous degeneration of the œsophagus? There was nothing here to guide us; no pain; nor was there that peculiar appearance which usually indicates the cancerous diathesis. I do not know of any; for we may have had the same as this man complained of produced by other diseases; but I think that we ought to look upon all cases of occlusion of the œsophagus occurring without any assignable cause with a great deal of suspicion.”

*A few Remarks on Irritation of the Spinal Cord.* By JOHN WILLIAMS, A. B., M. D., Surgeon to the Cork Eye Dispensary.—“I am not aware of a subject more replete with interest, or better calculated to repay careful investigation, than that class of per-

verted functions, whether of circulation, nutrition, or reflex nervous action, which, when grouped, form a lucid exponent of irritation of the spinal cord, but, when isolated and considered separately, are calculated to divert the attention from the *real* seat of morbid action to the sympathetic functional derangement of whatever organ or organs may appear to be more particularly affected, thereby misleading the practitioner, and urging him to the adoption of remedies useless, perhaps hurtful. In such cases as those to which I have made allusion, I consider it of primary importance, and a potent help towards the forming an accurate diagnosis, that extreme care be taken in the grouping of the existing signs and symptoms; for in the generality of diseases or perverted functions, but more particularly in the subject of these remarks, how characteristic soever a single sign or symptom may be, it would be a dangerous error to regard it as pathognomonic without the concurrence of others. To illustrate these observations, I adduce a case in which the peripheral extremities of branches of the lumbar plexus were affected, and the existing local symptoms pointed directly to the spinal cord; but the absence of those general symptoms which, when associated with the former, would stamp the impress of truth on the diagnosis, proved incontestably that the seat of the affection was not central, but peripheral.

“We must not, however, forget that irritation of the peripheral extremities of the spinal system of nerves, which, according to him to whom the entire medical community will for ever owe a debt of gratitude for his almost complete elucidation of nervous function, the knowledge of which previously had been enveloped in a thick mist—I allude to the late lamented Marshall Hall—is the true sympathetic, may be propagated backwards to the spinal centre itself. In the treatment of various affections of the cord we take advantage of the direct analogy which appears as if reflected from this fact, and we witness many examples where the normal function of the spinal cord was restored when the *local* treatment was directly applied to the peripheral extremities of its nervous branches. Amongst the variously perverted conditions in which we frequently observe the function of the cord, strictly independently of inflammatory or any other diseased action, we experience little difficulty in proving satisfactorily to ourselves that local irritation of the nervous extremities is, in many cases, the sole cause of these abnormal conditions; for example, convulsive action of the muscular system, the result of local irritation of the nervous extremities from pressure in the teething of infants; from the presence of worms in the intestinal tube, or of undigested matter in the stomach; or in more local spasmodic action, such as in many attacks of asthma from irritation in the lungs from odours, or subtile solid particles; or in the stomach and intestinal canal; the crowing inspiration of infants, not dependent on pressure on the pneumogastic nerve, but from local irritation; tenesmus and strangury, also afford like examples of disordered reflex action of the spinal cord, from local

irritation of the peripheral extremities of its nervous branches. In hydrophobia we have an example of perverted reflex action resulting from local *irritation*, if I may so speak, of a nerve of special sense, as evinced in the supervention of a paroxysm when fluid is either seen or heard. In those cases in which that group of morbid conditions, to which the term hysteria has been given, exists, mental emotions, and many other causes, give rise to perverted reflex action of the spinal cord; but, as in the case I purpose to bring before the Society this evening, a purely mental cause is *alone* sufficient to *irritate* and to stimulate to morbid action the cranio-spinal axis; and I do not hesitate to state it as my decided conviction that if the operation of that cause continue long in existence, the mere irritation of the cord would ere long degenerate into a more serious morbid affection, the approach of which is almost instantly heralded by its characteristic physical signs and symptoms.

“The most fertile cause—purely mental—of spinal irritation is mental depression. The ability of emotional causes to excite to morbid action, through the medium of the cerebrum alone, may be questioned, if we consider that mechanical irritation, such as an apoplectic clot, or direct pressure in experimentalizing on the inferior animals, applied to the cerebrum, fails in exciting the spinal cord to action; the convulsive actions which are present, in some cases where the cerebrum alone appears to be affected, are due, according to Marshall Hall, to the implication of one of the membranes of the brain in the disease, for branches of the spinal system being distributed to them, the cord through them becomes irritated. Still, in epilepsy and other diseases of a convulsive nature, the cerebrum, too, is more or less affected; this is particularly seen in those morbid conditions of the spinal cord in which the convulsive movements cease during sleep, that is, whilst the cerebrum is in a quiescent state; but at all other periods mental emotions are alone capable of inducing the convulsive action. In hysteria, an excellent example is afforded of the potency of mental emotions in the production of deranged reflex actions of the spinal cord. In illustration of the morbid irritability of the cord, a result of prolonged mental depression, I bring forward the following case:—

“A gentleman, aged 27, for three years suffered from severe mental depression, the result of various causes; his general health had been excellent, but for some time he suffered from bronchitis. To so low a condition were his mental powers brought, that he dreaded self-destruction; dark despair seemed to have taken up its fixed abode in his unhappy breast; his sleep became disturbed, and soon almost entirely vanished; he became most excitable at night, chiefly from want of sleep; he complained of occasional wandering pains between the shoulders, in the lumbar region, and down the extremities. It appeared evident to me that this state of things could not long exist without the manifestation of some morbid action or disease. On Friday, January 11, 1855, he got diarrhœa; the stools were chalky; this ceased, and on January 13th the



bowels were stated to be irregular, extremities cold, pains in the back, loins, and lower extremities; on January 15th some irregularity of bowels and coldness of the lower extremities; pain complained of in the back, lumbar region, and lower extremities; loss of appetite; pallor; sleep very much disturbed, and of short duration.

“January 20th. The symptoms last reported have increased in intensity; a feeling of numbness and tingling in the lumbar and hypogastric region, penis, perineum, and lower extremities, particularly in the balls of the great toes, is complained of, and also distressing tinnitus aurium; bowels constipated.

“23rd. The numbness is worst in the lower extremities; and with it a feeling of constriction is complained of in the perineum, penis, and hypogastric region. Since the last note there is great uneasiness felt in the rectum, and its *mucous coat is prolapsed*; the abdomen is full, tense, and tympanitic. Bowels rather loose to-day; fæces clayey; legs and feet very cold; tongue coated; thirst and headach are complained of. Eight grains of mercurial pill were given, and followed by black draught.

“25th. An aggravation of all these symptoms seems to have taken place; the tinnitus aurium is complained of as most distressing; the loins and lower extremities are numb and cold; the patient, although walking about, and engaged at his usual occupations, has still a want of confidence in his lower extremities, and often fears lest he may fall in the street.

“February 2nd. Symptoms still the same, and the numbness is confined to the same places; bowels are constipated; fæces are at some periods quite white, at others, tarry; urine ammoniacal and clouded.

“March 20th. No change in the symptoms. A new symptom is to-day complained of, viz., a constricted feeling below the umbilicus, as if a string were tightly tied about the abdomen. This sensation, which is one of the most constant symptoms of a morbid condition of the spinal cord, is caused by a deranged action of the diaphragm, the floating ribs being drawn by its muscular contraction towards the vertebral column; the abdomen below the constricted line is full, tense, and tympanitic; the legs, from the knees down, are numb and very cold, and sometimes affected with “cramp;” a peculiar bursting sensation is felt in the soles of the feet, and great pain across the instep; the urine is ammoniacal, and on cooling it deposits a most copious *white* deposit, which Dr. Frazer, of Dublin, examined under the microscope, and found to be the triple phosphate of ammonia and magnesia; so copious was this deposit, that I could with ease have collected ounces of it. For a considerable period this state of things continued, the patient able to be out at his engagements, but spiritless and debilitated; yet he was not at all emaciated. Some slight improvement was beginning to manifest itself, when, at the end of three months from the onset of the attack, he got scarlet fever, during which all the symptoms

disappeared, but they quickly returned, with the single exception of the state of the urine, which ceased to deposit phosphates. About this period the mental depression began to disappear, its causes being removed; and finally, under a course of quina, and the local application to the lumbar region of the firing-iron, he completely recovered.

“Here was an undoubted case of spinal irritation, *excited* by pure mental depression; and I must say I feared, if not checked, ramollissement of the cord would have ensued. How truly does this verify those practical remarks of Watson, that ‘where ammoniacal urine is coexistent with phosphatic deposits, some profound fault in the nervous system may be suspected; and it is a fact of practical importance that the tendency to alkalescence of the urine from fixed alkali, and therefore to phosphatic deposits, goes along with general debility, and signifies that the health has fallen below par. Persons who are jaded and spent through over-much toil, *whose vital energies have been depressed by mental anxiety*, by insufficient nourishment, or sensual excesses, are apt to pass water that is alkaline, or but faintly acid, and to exhibit in their urine the tokens of the so-called phosphatic diathesis. They are for the most part cachectic, sallow, languid, spiritless, exhausted.’ In such cases quina, in my estimation, ranks high; under its employment the normal healthy action is soon restored.”

DR. W. C. TOWNSEND, Assistant Physician to the Cork Union Hospital, exhibited an interesting pathological specimen of *Cancer*, the particulars of which are as follows:—

“Jeremiah Ring, aged 50, labourer, was admitted to the medical ward of the Union Hospital, October 3, 1857; he complained of weakness and inability for exertion; was ordered to get a purgative draught, also a pint of porter.

“On my visit the following day, he complained of piles; on examination I directed him to be transferred to the surgical ward. The hemorrhoids having been relieved, he left the hospital, November 9.

“On the 24th of November, he was again admitted to the hospital, with pain in the epigastrium, which he complained of having felt three days previously; was a good deal debilitated, and presented an emaciated, sallow appearance; a blister was directed to be applied to the epigastrium. On the following day he was ordered meat diet, with porter. On the 1st December he took a sudden dislike to food of any kind, with the exception of milk; he lingered on, complaining of the pain in the epigastrium, which continued without any interruption, and for which he was ordered repeated blisters, and opiate applications to the scrobiculum cordis. On the 30th of December he complained for the first time of nausea; this was relieved by a few effervescing powders; he never vomited. He died January 29, 1858.

“*Autopsy*, 28 hours after death.—Emaciation not considerable;

on section of the abdomen the liver was found immensely enlarged, in fact a mass of cancerous deposit; on opening the stomach, the entire of the lesser curvature was covered with scirrhus deposit; the pyloric orifice and inlet were quite free from disease; no unhealthy appearance in the lungs, pancreas, or kidneys.

“This case is interesting as evidencing the extent of disease that may be present without causing much inconvenience. This poor man left the hospital on the 9th of November apparently well; he returned again on the 24th of the same month, and died on the 29th of January following, within three months. Is it probable that so large an amount of disease could have been deposited within so short a period?”

FEBRUARY 24TH.

THE PRESIDENT, DR. R. CORBETT, in the Chair.

The Secretary read the following cases, communicated by DR. FURLONG, of Kinsale.

“Some time about the year 1816 or 1817, I was called upon in the course of dispensary duty to visit a woman some miles distant from my residence, in her confinement.

“On my arrival at the cabin, I found her, as was usual, lying on a bundle of straw, surrounded by female friends, amongst whom were a couple of that respectable class called *grannies*. She was about 35 years of age, the mother of three children, and I was informed had been in labour for two days. I observed the pains were sharp, coming on every five or six minutes, but not resembling the usual pains of labour. The pulse was not accelerated, neither did the countenance flush, nor did the abdominal muscles appear engaged. On examination I could barely feel the os uteri still closed. I concluded the pains were adventitious, and, being a young practitioner, felt rather angry at what I considered to be an unnecessary ride. I ordered an anodyne, to be followed by an oil draught, and desired to be sent for when real labour came on, if necessary. In about a fortnight after I was again summoned to her, and was told that after the anodyne the pains had ceased, but that she was now in good, active labour. On my arrival I found the pains very sharp, but in every respect as before. I now made a more careful examination, and found the uterus unimpregnated, the os closed and easily tilted on the finger. I examined the abdomen, and discovered in the right side that I could distinctly feel the form of a fœtus, and on further inquiry was told that the woman had her catamenial discharges all through her pregnancy.

“I now looked upon the case as one of extra-uterine gestation, the ovum being probably stopped in its passage, and its growth carried on in the Fallopian tube. I again recommended the use of the anodyne to be repeated whenever symptoms of labour appeared, explaining to the people, in such homely language as they could understand, my ideas of the nature of the case, and that probably in

a few weeks a circumscribed tumour with redness would appear, which they were to poultice; and left general directions as to her strength being supported.

“In about six weeks after, I was informed that an abscess had discharged, throwing out parts of a fetus. Some portions which I saw appeared to be of five or six months’ growth. Suffice it to say, the entire mass came away gradually, and the woman recovered her strength, supported by good diet, bark, and wine.

“This poor woman died in about four years after, I heard, rather suddenly, having only complained of some pain for a few hours, resembling colic. I did not see her at or after death.

“As *Traumatic Tetanus* is one of those diseases which too often baffle our best endeavours, the following case, which occurred while I was a student, fell under the care of a fellow student long since dead, and myself, and as recovery took place from a formidable train of symptoms, it may afford some interest to our medical brethren.

“This case occurred in Dublin, I think about the year 1811. A young woman, about eighteen or twenty years of age, servant to a housekeeper in a nobleman’s family, having been much fatigued by night attendance on her mistress during illness, lay down at an early hour in the morning, with her back to the fire. She fell into so profound a sleep that she did not awake until her clothes were in a state of ignition from coals having fallen from the grate. On rising up they burst into flame, and the poor girl rushed out and threw herself into a large house cistern, which extinguished the flame, but not until she was extensively burned; the injury extending from the neck to the nates, and across the back from shoulder to shoulder, as well as across the loins.

“For the purpose of exciting nervous energy, my friend, who visited her immediately, poured a large bottle of spirit of turpentine over the burned part, which certainly aroused the sensibility of the parts, after which the whole burned surface was smeared with linimentum calcis, followed by poultices. Suppuration came on, but accompanied by trismus, soon followed by general tetanic spasms.

“My friend and I got a cork between her teeth, and commenced rubbing the jaws and neck with a strong anodyne liniment, giving at the same time a grain of solid opium, combined with two grains of extract of jalap, every hour, and placed a pillow under the abdomen, which, as she was obliged to lie on her face and hands, in some degree relieved the spasms, now amounting to opisthotonos. We continued the treatment for twenty-four hours, and then sought the advice of the late Dr. Hartigan, then Professor of Anatomy at Trinity College, whose lectures we were attending. He kindly saw the case, approved of the treatment, but assured us recovery was hopeless. We persevered, and had the satisfaction of seeing the symptoms yield gradually, enabling us to give our doses of opium at longer intervals, until all danger was over.

“ The injured parts sloughed freely, and were perfectly healed in about two months.

“ When Dr. Hartigan was, in a subsequent part of his course, lecturing on tetanus, he asked to have the young woman brought to the lecture-room, where he exhibited her to his class as one of the very few cases of severe tetanus he had ever seen saved.

“ The following case may appear interesting, as exhibiting some of those anomalous symptoms occasionally resulting from *vitiating bile, or obstructed flow through the ducts*. In this instance the peculiar state of the circulation, until spasm or obstruction was removed, appears more particularly to claim attention.

“ I was called upon, about fifteen years ago, to visit a clergyman who was largely engaged in farming business, aged about 50; sallow countenance; dark eyes, of peculiar depth; confined habit of body, and the frequent subject of hemorrhoids. I found him sitting up in bed, apparently much alarmed; free from pain of any kind, but every couple of minutes seized with convulsive movements of the eyelids, slight snuffing of the nose, and spasmodic twitches of the face, falling back at each attack on his pillow, but immediately resuming the erect posture. He was perfectly clear in intellect, spoke well, complained of nothing more than the violent stroke of his heart, which shook the curtains of his bed; the tongue was perfectly clean, and he had taken some purgative, which had not acted at the time of my visit. He had been standing, a day or two before; for some hours superintending labourers, in a marshy piece of ground.

“ Believing the symptoms arose from biliary obstruction, I at first gave an emetic, which produced no amelioration of symptoms; I then applied a large blister over the epigastrium, and gave an active dose of calomel and colocynth, followed every hour with a wine-glassful of black draught.

“ While anxiously waiting for the action of these medicines, I from time to time felt his pulse, which generally during the attack beat 28 strokes in a minute, and found it occasionally reduced to 13 beats; and at one time I actually counted 28 seconds between two pulsations; this occurred after one of those convulsive attacks I mentioned, and alarmed me considerably. The purgative having been taken some time, I immediately threw up a strong purgative enema, which acted speedily, bringing off a large quantity of black matter of a melanotic character. The enema was repeated soon after, with a similar result, when the convulsions ceased; the pulse rose to 60, and became steady; the tongue, hitherto morbidly clean, now became coated with a thick white crust, and he was well.

“ I was sent for about two years afterwards to see him, and found him dead; he staggered while watching labourers at work, and fell; he was brought dead into his house.”

*Cancer of the Cardiac Orifice of the Stomach, and Hypertrophy of the Pancreas.*—DR. FINN narrated the history of this case, having

previously exhibited pathological specimens illustrative of the above lesions.

Catherine Finn, aged 60, was admitted into hospital on the 19th August, 1857, suffering from frequent vomiting and obstinate constipation. She stated that her habits were always regular and temperate, and that she had enjoyed uniformly good health up to about eight years since, when she suffered from obstruction of the bowels, which yielded to appropriate treatment. After this period her habit of body had been most regular for several months. About four years since she first suffered from an empty straining, which continued more or less throughout the day. After this had persisted for some months, vomiting supervened, some hours after taking food, accompanied by tenderness in the epigastrium. This symptom generally ceased or abated when the stomach had rejected its contents. The vomiting occurred most frequently during the night. These symptoms continued with more or less intensity till about six months previous to her admission to hospital, when rejection of food from the stomach immediately succeeded deglutition. The pain in the epigastrium had now ceased, and was replaced by a sense of soreness, experienced during the act of deglutition. Symptoms on occasion of admission to hospital:—Constant irritability of stomach; obstinate costiveness (this symptom demanding the almost daily use of lavements for the long period during which she was under treatment); tongue clean; pulse 74, small and hard. There was no fulness in the epigastrium; nor was there any intolerance of pressure over this region. On applying the stethoscope over the abdominal aorta, a loud murmur was occasionally heard, about an inch below the ensiform cartilage, and a little to the left of the median line. During the latter months of her illness she complained of some deep-seated obstacle to swallowing, referred to the interior of the stomach, and emaciation now progressed so rapidly that life was only sustained by the administration of enemata, composed of small quantities of beef-tea and arrow-root. Death took place on the 15th of February.

*Autopsy.*—Body wasted to an extreme degree; abdominal walls collapsed, and in contact with the spine. The liver, which was atrophied, presented a congested appearance and a diminished consistence. The other viscera were unusually pale. The stomach was remarkably small; its walls were much attenuated; and the interior was covered by a thin coating of greenish matter, on the removal of which the mucous membrane exhibited an anemic appearance similar to that of the other viscera. The pancreas was hypertrophied throughout its entire extent. The cardiac orifice of the stomach was both hypertrophied and indurated; a small body, about the size of a grape, was attached by a very short pedicle to its posterior aspect. The pyloric orifice did not present any deviation from the normal state. Sections of the cardiac orifice and of the grape-like process attached to it, examined under the microscope by Professor Purcell O'Leary, exhibited in a marked manner the form of

cells characteristic of cancer. The pancreas, having been subjected to a similar examination, did not appear to participate in the cancerous degeneration.

*Remarks.*—The occasional development of a murmur in the abdominal aorta interposed some difficulty in the way of an early diagnosis in this case; but the immediate rejection of food consequent upon deglutition; and the patient's consciousness of the existence of some impediment to this function, at or near the cardiac orifice, implied that the gastric symptoms had their origin in some structural change involving this part.

DR. CREMEN communicated to the Society that within the previous month several cases of *Asthenic or Latent Pneumonia* had come under his notice, in which the characteristic phenomena of the disease were either absent or obscured by the general febrile condition; the patients complained only of lassitude, chills, and loss of appetite; there was no heat of skin; the pulse was slightly accelerated; in some of the cases the pleura was involved, and then pain was referred to the corresponding side; the left lung was oftener affected than the right, its base in all the cases. The following, which was the first that occurred, and in which Dr. Cremen at first overlooked its true nature, in some degree illustrates the character of the disease.

Pat Walsh, aged 30, a mason, presented at the Clarence-street Dispensary on the 8th of February, 1858, complaining of the above symptoms, which, he stated, he had laboured under for the previous five or six days, during which he worked at his trade. On the 7th February he was attacked with pain in the left side which disabled and obliged him to seek advice; he stated he had a cough so slight as not to signify; his aspect was peculiarly typhoid on this day; however, Dr. Cremen did not make a physical examination of his chest. On the 9th February he visited him, and found the symptoms the same as on the previous day; but on inquiry was informed that the sputa were discoloured and reddish; this caused him to suspect the existence of a lung affection, and on percussing his chest he discovered two-thirds of the left side dull, and the lung completely solidified to this extent. Bronchial respiration and bronchophony were audible over this space, and cough elicited a fine crepitus; there was no dyspnoea; the tongue was foul and creamy; the pulse was slightly accelerated, and feeble. The treatment consisted in a large blister to the side, a small quantity of calomel and opium, a combination of carbonate of ammonia and camphor mixture. Under this he gradually improved. There was some difficulty in convincing him as to the danger of his condition; and on one occasion, after exposure to cold, he relapsed, with an aggravation of his symptoms; he eventually convalesced favourably, but slowly. Dr. Cremen has seen him since, when he complained of debility and the sense of constriction at the seat of his former disease; he is now completely recovered under the use of tonic medicines and sulphate of quina.

The other cases were exactly similar in their history and symptoms: the treatment was purely stimulant and tonic, with quina, no calomel and opium. No one of the cases would warrant the abstraction of the smallest quantity of blood; one of the cases was fatal; the subject of it, a labourer, persisted in following his work until purulent infiltration of the lung took place. Beside these cases, there were some few cases of passive congestion of the lung, and two cases of highly congestive bronchitis, in which the sputa were sanguineous; the physical signs of pneumonia were absent. Dr. Cremen was informed of the occurrence of other cases of this latent solidification of the lung in the better ranks of life during the same period. Dr. Corrigan, in the *Dublin Hospital Gazette*<sup>a</sup>, and M. Sancerotte, as quoted in the *Medico-Chirurgical Review*<sup>b</sup>, have well described this disease. The latter states it may be confounded with pleurisy. The differential diagnosis of these diseases is too easy to admit of error when a careful examination is instituted. Dr. Cremen found that in some of the cases referred to, when pleuritic pain was complained of, there was not any difficulty about the diagnosis on physical examination.

The following case was reported by A. H. ORPEN, M. R. C. S.:—  
J. C., aged 35, a scavenger, admitted into the Cork Union Hospital under the care of Dr. W. C. Townsend, December 11, 1857, from the A B division of the workhouse, which he entered on the previous 1st of November. Before his coming into the workhouse he had undergone a good deal of hardship and privation, not having enough to eat and drink, and what he had was of an inferior description; he was also exposed to cold and wet; and was in the habit of drinking raw spirits. On admission to the hospital he complained of a dull pain at the pit of the stomach, which he stated he first felt a few days previously, while taking a drink of cold water; pulse 80; tongue furred; great thirst; appetite ravenous; no evidence of enlarged liver or spleen. Ordered a draught of castor-oil, with 30 drops of tincture of opium in some peppermint water, and to have a turpentine stupe to the pit of his stomach.

December 14th. He complained of sickness of stomach; ordered to have an emetic immediately, and two blue pills and colocynth at bed-time.

16th. Feels better, but the pain in the stomach comes on a short time after eating; ordered two galbanum and colocynth pills every night, and a draught containing two drachms of Epsom salts, with 15 minims of dilute sulphuric acid, every morning; also to have a blister to the epigastrium.

17th. Vomited four hours after dinner last evening; from this to the 28th he vomited at least once every twenty-four hours; on one occasion he did not vomit for six-and-thirty hours.

29th. Pain in stomach very severe; omit the pills and draught;

<sup>a</sup> Vol. ii. No. 12.

<sup>b</sup> January, 1847.



ordered 10 grains of Dover's powder immediately; to be repeated (if necessary) at bed-time; also repeat the blister to the epigastrium.

30th. Pain not better; vomited twice yesterday, and once this morning. Ordered to get mercury with chalk, and Dover's powder, of each 5 grains, every fourth hour.

January 1st, 1858. The pain still continues. Omit the powders, and repeat the blister; tincture of opium, 25 minims, at bed-time.

7th. Has vomited once every day since the 1st; no relief from the pain; is much distressed by flatulent eructations. Ordered to get, every second hour, carbonate of magnesia, 8 grains; tincture of opium, 5 minims, in a little peppermint water; also to have an opiate plaster applied over the stomach.

20th. He was ordered to take, three times daily, 5 grains of the trisnitrate of bismuth, with 10 grains of the compound powder of tragacanth.

February 1st. He now vomits after every meal; pain at scrobiculus cordis still continuing, of a dull aching character, he was ordered milk diet exclusively; and to get 2 minims of dilute hydrocyanic acid, in a draught, three times daily; and a belladonna plaster over the stomach.

8th. Vomiting is still going on; he vomited matter this morning which consisted chiefly of milk curd, some of which also passed off.

10th. This morning the vomited materials consisted of a dark-coloured fluid, like coffee-grounds; is in great pain; a great deal of mental anxiety about him; pulse 84; tongue furred, very red at tip and sides; abdomen flatulent; very much emaciated; countenance assuming an olive, waxy appearance. Omit the hydrocyanic acid; ordered to take half a wine-glassful of lime-water three times daily; and one grain of watery extract of opium at night.

11th. No vomiting since yesterday.

12th. Vomited last evening, and again this morning; the pain still continuing; no tenderness on pressing the abdomen; no enlargement of any of the abdominal viscera can be detected; did not sleep last night; the vomited matter presented the same coffee-ground appearance.

15th. Is in great pain to-day; does not like the milk. Ordered to have a mutton-chop daily.

16th. Vomited yesterday, one hour after eating the chop.

18th. Coffee-ground discharge from stomach again to-day; dejections (which up to this time were watery discharges) rather feculent.

He lingered on in great agony, emaciated to the most extreme degree, and vomiting a few hours after eating anything. He died March the 5th, 1858.

*Autopsy*, twenty-six hours after death, by Mr. Orpen.—Emaciation extreme; his bones barely covered; and his face so emaciated that it appeared more like a skull over which a piece

of parchment had been drawn tightly, than anything else; the abdomen was sunk in, and the abdominal muscles were rapidly decomposing. On section of the abdomen, the intestines were found to be in a high state of decomposition; the stomach was found to be very much contracted, and adherent to the spleen; the liver was not enlarged nor contracted. On cutting into the liver it was found to be a good deal congested; no other alteration was observed in it. The spleen was enlarged and indurated; its fibro-serous investment was very much thickened and opaque, and was intimately adherent to the stomach, also to the diaphragm and abdominal walls. On cutting into the spleen, its convex surface, underneath the peritoneal sheath, was found to be invested with fibro-cartilaginous tissue, of bony consistency, to the extent of four or five lines in thickness; its parenchyma was highly congested, of a reddish-brown, sarcomatous appearance.

On cutting longitudinally through the coats of the stomach, it was found empty; its internal surface was covered with viscid mucus; on washing this off, the mucous and submucous areolar coats were found to be greatly hypertrophied; some slight redness was observed near the pylorus. The lining membrane of the duodenum, near the pylorus, presented a slate-coloured appearance; the pancreas was a mass of scirrhus deposit. Both the kidneys were found, on section, to be affected with Bright's disease; some carcinomatous deposit existed in the left kidney, which was larger than the right, and was adherent to the lower portion of the spleen.

*Remarks by Dr. Townsend.*—"Throughout almost the entire of this case there was constant vomiting, and yet the pyloric outlet was free and open; no bar to the passage of the contents of the stomach into the duodenum; no ulceration or trace of deposit in the stomach. True, there was great thickening of the mucous and muscular coats, but no ulceration; no apparent cancerous deposit; no impediment either at the inlet or outlet; still the patient was never free from pain. In contra-distinction, as evidence of the immense power of accommodation that organs are capable of, while disease slowly but surely advances, I exhibited a short time ago to the Society a pathological specimen, where the liver and the lesser curvature of the stomach presented a mass of specific malignant disease, and yet the patient never vomited; the pyloric orifice was also free from disease. In the former case the patient was never free from pain, vomiting almost daily, and, towards the end, after each meal; in the latter case there was no vomiting, and little pain or uneasiness, the marked symptoms being an inability to take food, and consequent wasting.

"Might the constant vomiting be owing to the adhesions that existed between the stomach, pancreas, and spleen? I am inclined to think so."

*Case of Abdominal Aneurism.*—DR. FINN exhibited a pathological specimen of the above disease.

John Quade, aged 40, a labourer, was admitted into the North

Infirmary on the 14th December, 1857. He had been formerly a coachman, but for some years has worked as a labourer; his habits had been intemperate; latterly, however, declining health has compelled him to indulge to a less extent than previously. His general health had been good to the commencement of his present illness, and he never required medical treatment save for an attack of syphilis, from which he suffered several years ago. His present illness dated from about eighteen months since, having been ushered in by pain in the umbilical region, across the loins, and along the course of the sciatic nerve. Has lately suffered much from flatulent distention of abdomen after eating, and from obstinate costiveness. Has also suffered much from coldness of the lower extremities.

Present symptoms: Anxious expression of countenance; tongue clean and moist; appetite bad; costive state of bowels; pulse 76, regular; complains of dull pain in the left hypochondrium; this pain, which is much increased towards evening and night, precludes continued sleep. Within the past few days suffers from an occasional paroxysm of pain of a burning kind, so intense as to cause him to moan, and lasting for an hour or two; it shoots from the umbilicus to the right inguinal region; decubitus on left side; dorsal decubitus occasions a sensation "as if the heart were flying out of him." He suffers occasionally from vertigo when walking rapidly or working more severely than usual. In the left hypochondrium was discovered a tumour of about the size of a small orange, which, viewed from a short distance, resembled an abscess about to open externally; this tumour at its highest point of elevation (the centre) was raised a little more than an inch above the surrounding surface. It communicated a strong impulse to the hand at every point of its surface; but no murmur was heard on applying the stethoscope, except at the distal extremity of the tumour, near the umbilicus, where the superficial elevation of the skin abruptly terminated. The murmur at this point ceased in the erect position. The sounds of the heart were normal.

December 30th. Slept better than usual; pulse 66, equal in both wrists, but feeble. From the 14th to the 30th December the tumour rapidly increased in size, measuring more than 5 inches transversely, and  $4\frac{1}{2}$  inches in the vertical direction. It now extended beyond the mesial line to the right side. From the latter date to the period of his death on the 23rd February, his sufferings progressively increased, and relief was only obtained by the use of anodynes frequently administered.

*Autopsy.*—General emaciation. The epigastric tumour, which had previously existed, had wholly disappeared. The cavity of the peritoneum contained a very large quantity of blood. Some blood was also observed to have insinuated itself in several places behind the peritoneum, reflected on the viscera. The blood escaped from a vast aneurism, situated behind and between the crura of the diaphragm, and extending thence to within about an inch from the bifurcation of the aorta. On the anterior surface of the aneurism, and above

the cœliac axis, there existed an opening of irregular form, about an inch wide, through which the blood escaped into the abdominal cavity. The distal end of the sac overlapped the uninjured portion of the vessel, interposed between it and the bifurcation. The aneurismal sac was with great difficulty separated from the spinal column, to which it was closely adherent. The bodies of three of the lumbar vertebræ had suffered erosion. The liver was atrophied and pale, and appeared to be displaced upwards. The pericardium contained about three ounces of serum; in other respects the thoracic viscera appeared healthy.

*Remarks.*—The absence of murmur in this instance may be referred to the vast size of the aneurism; the murmur heard at the distal side of the sac existed in a portion of the vessel free from dilatation. In an obscure case of abdominal aneurism recorded by Dr. Hope<sup>a</sup>, who had an opportunity of making a post-mortem examination, he attributed the absence of murmur to the lateral inextensibility of the sac. The reverse of this condition of the sac having existed in the present case, with a similar result, suggests that much yet remains to be accomplished in this field of inquiry.

*Case of Foreign Body in the Air-Passages.* By JOHN WILLIAMS, M.D.  
—“From the character of the symptoms that are attendant on the accidental passage of a foreign body, such as a solid or fluid particle, into the windpipe, there is rarely difficulty experienced in recognising the nature of the accident, if recent. The same remarks are applicable when *complete* occlusion of the trachea or right or left bronchus is caused by a piece of meat, or, as in a case given by Dr. Stokes, in his work on Diseases of the Chest, by a peeled kidney bean, which so completely obstructed the right bronchus as entirely to prevent respiration in the corresponding lung; but in those cases in which all the immediate urgent symptoms have subsided, and those which are present indicate rather morbid action either in the bronchial mucous membrane or in the parenchyma of the lung itself; the recognition of the presence of a foreign body in the air-passages, under such circumstances, is, in my experience, a matter attended with a vast amount of difficulty.

“In the case which I purpose to bring before the Society this evening a like difficulty presented itself, and at no period was I afforded any means whereby I might correctly determine the presence of the foreign body. Various rules are laid down in systematic treatises, whereby a correct diagnosis may be arrived at, but in practice it will, I am sure, be found impossible invariably to make application of those rules. When a foreign body, with a perfectly smooth surface, and of such dimensions as not seriously to affect the passage of air through the air-tube in which it is located, has got by accident into the lung, if not soon expelled, irritation either of the pulmonary parenchyma or of the bronchial mucous membrane is quickly ex-

<sup>a</sup> On Diseases of the Heart, page 462.

cited; the foreign body forming in one case the nidus of an abscess, or in the other it remains *in statu quo*, but has given rise to inflammatory action in the bronchial investment. Now if the foreign body be of such a nature as a pea, or a portion of soft fruit, &c., that it may be softened and mixed with mucous, be expelled without attracting the notice of the patient,—the inflammatory action, notwithstanding the removal of the cause, may be persistent. This is ordinarily the case in persons that are of a strumous diathesis; but if the foreign body be of such a nature as an iron nail, tooth, cherry-stone, or such like, its presence is without difficulty detected. I recollect having heard the present Professor of Anatomy in Belfast College, Dr. Carlisle, a profound physiologist, when Lecturer at the Park-street School of Medicine, declare that ‘a pea by accident got into his trachea; that for three days or more it caused intense irritation; but since then he had never *heard from it*.’ He did not to his knowledge expel it; so I think it probable it became soft, and thus escaped notice in expectorated mucus. In all cases the severity of the symptoms is directly proportioned to the nature and dimensions of the foreign body. Of course it must be allowed that the constriction of the tube itself (owing to muscular contraction) does exercise an influence on the ingress and egress of air, but this must be trivial in amount. In the case which I now bring forward, the foreign body, which was evidently in the right lung, did not altogether interfere with respiration, but, like a vibratory tongue in a musical instrument, modified the natural respiratory murmur, and occasioned the stridor. As to the position that it must have occupied, there can now be no doubt, from the universal bronchitis that immediately ensued.

“In the early part of October, 1857, I was sent for to visit Mrs K., who, I was told, was suffering from cough with expectoration for nearly three months. The history she gave me of her case was that in the month of July—when she was in excellent health—whilst eating peas, which were rather old and tough, at dinner either a whole one or part of one passed into the windpipe: this was followed by a violent and prolonged fit of coughing, during which her face became highly congested, and ultimately, when almost exhausted from the violent exertions to get rid of the foreign body, she coughed up a portion of the skin or spermoderm of the pea. For some days she ‘felt something loose in her throat, which moved up and down, and caused her great inconvenience.’ This sensation soon disappeared, but she fancied she got cold at the time, as ‘the cough never ceased since.’ Her respiration quickly became hurried and stridulous, and it caused her great distress to walk up stairs. She went to the country, and was under medical treatment, with the particulars of which I am unacquainted; but at the expiration of nearly three months after she ‘got cold,’ as she herself thought, she for the first time came under my notice and care. When I saw her, she was much emaciated. Physical examination revealed most extensive bronchitis over the entire chest; the

right lung was rather more affected than the left, which fact was also known to the patient, for she referred most of the symptoms complained of to that side of the chest. After the least exertion her respiration became hurried and stridulous. She was therefore wholly confined to the house, and usually sat for hours leaning forward, and resting her elbows on her knees, as that position gave her most ease. The expectoration, which was sero-mucous, was very profuse; her pulse was weak and quick; she had no desire for food, and her countenance wore an anxious expression. The dyspnœa and stridulous respiration assumed a paroxysmal character both in the day-time and at night, and, while present, assimilated closely spasmodic bronchitis or asthma. I must here remark that the physical exploration of the chest revealed to me no other signs than those attendant on ordinary bronchitis, and I was therefore inclined to refer the present attack to cold caught at the time the accident occurred; but, from what cause soever it originated, a certain group of signs and symptoms presented themselves to me, and I therefore shaped my plan of treatment accordingly. With a view to unload the bronchial tubes, I ordered an emetic of ipecacuanha to be given daily. This was pursued for a few days with good effect, so far as relieving the dyspnœa, but it then produced such active purgation that I was reluctantly obliged to discontinue it. I now began the senega with the carbonate of ammonia, and counter-irritation to the front and back of the chest alternately, ordering at the same time a generous diet. For some time I witnessed no change of any amount in the urgent symptoms, and at each visit I generally found my patient with a countenance expressive of great anxiety, whilst the lips were purple, and the conjunctiva deeply congested. Notwithstanding, I never, during the whole course of my attendance on this lady, observed any departure from the signs and symptoms that ordinarily accompany a severe attack of spasmodic bronchitis. I now began the quina treatment, with an occasional draught of camphor mixture with Hoffman's anodyne at bed-time, still continuing the acetic acid and turpentine liniment externally, and I soon witnessed a steady improvement in all the symptoms. She began now to gain flesh; her pulse diminished in frequency, the dyspnœa became less urgent, and she was enabled to take walking exercise. She continued to improve steadily, and I considered my attendance on her no longer necessary. On paying a friendly visit some time after, she expressed herself nearly as well as ever, but occasionally, after walking up stairs or other exertion 'she suffered, as she expressed it, from quick breathing and wheezing,' but her appetite and general health were nearly altogether restored, and likewise her spirits, which previously were much depressed. At the end of four months after my first visit, or seven months from the date of the commencement of the attack, I was informed, when attending Mr. K. for an attack of inflammation of the ankle, that the evening before Mrs. K. was suddenly seized with a violent fit of coughing which lasted more than an hour. During this paroxysm her friends

feared it was but to herald something worse, her face became so congested,—when, to the surprise of all, she coughed up what proved to be a pea, and quickly after she coughed up the skin of it, into which it fitted accurately. From this period not a trace of either dyspnoea or stridor remained, and in order to complete this report I called on her last Saturday, and found her in her usually good health. However, as I anticipated from the severity of the bronchitis which pervaded both lungs, she is rather liable to catch cold, and is therefore obliged to be cautious.”

MARCH 16, 1858.

DR. R. CORBETT, PRESIDENT, in the Chair.

An extra meeting was held on this evening to afford an opportunity, not only to the members of the Association, but also to their medical brethren, of observing the phenomena so remarkably exhibited in the person of M. Groux, for which purpose this meeting was thrown open to the profession at large, when that gentleman explained the several points worthy of observation; but as the case of M. Groux has been already fully described, we shall not here enter into its peculiar features.

DR. S. HENRY HOBART then brought forward the man George Sinick, who had been operated on for *Carotid Aneurism* in September last, and whose case has already appeared in the February Number of this Journal (1858); the man appeared to be in good health, and complained of no uneasiness in the site of the former aneurism. There is evident deficiency of the sterno-mastoid at the left side, that muscle having been twice divided during the treatment of the case; still, though there is some tendency to turn the head to the left, he is well able, and generally does, keep it quite straight.

MARCH 24, 1858.

DR. R. CORBETT, PRESIDENT, in the Chair.

DR. CREMEN exhibited a specimen of *Uterine Hydatids*, and detailed the following case:—

Ellen Mitchell—aged 40, a slight, delicate, cachectic-looking woman, mother of thirteen children, ten of whom died very early; the last was premature, at seven months, and occurred two years ago; the accident resulted from violence; states that the catamenia have been always regular, but absent for the last four months. She did not think that she was pregnant, when, on the night of the 9th of March, she was seized with violent and recurring pains in the lumbar and hypogastric regions; a month previous to this date she fell while carrying a heavy load on her head, when the abdomen came against the kerbstone, since when she has suffered at intervals from pain in the lower part of the abdomen. After suffering

for some hours from the pains on the 9th March, some large fleshy masses were expelled; these Dr. Cremen did not see. On visiting her on the 10th March she was tranquil and free from pain; the abdomen was enlarged to about the usual size at the third month of utero-gestation; the uterine tumour was well defined, but wanted the firmness of healthy pregnancy; exquisite pain was complained of on pressure over the hypogastric region; the pulse was 96; other functions natural. She was ordered anodynes, with turpentine fomentations, after which the symptoms subsided, and she went about her *duties* in a day or so.

On the 21st March she was again seized with uterine pain as before, and after some hours a large fleshy mass was expelled; this was followed by considerable hemorrhage. On visiting her on the 22nd, Dr. Cremen found her blanched and feeble; and on instituting a vaginal examination the os uteri was soft, moist, and dilated to about the size of a two-shilling piece; the finger seemed to move over a fleshy surface like placenta, with a feel corresponding; this specimen was expelled on the 23rd March, and from this period she gradually recovered. It is necessary to observe that the patient had watery discharges from the uterus for seven or eight days previous to the 9th March. Dr. Cremen would consider the diagnosis of uterine hydatids as dependent, among other circumstances, on the following:—

1. The age and cachectic condition of the patient; the fact of her having had many pregnancies, some of them abnormal.

2. The absence both of mammary development and sensation of quickening at or after the usual period these phenomena manifest themselves.

3. The extreme flaccidity of the abdomen, not in conformity with the firmness of healthy pregnancy.

4. The occurrence of watery discharges.

5. The peculiar sensation given to the finger in vaginal examination, viz., soft, fleshy, and so extremely yielding, not corresponding with, nor to be mistaken for, any of the fœtal presentations, except, perhaps, that of the abdomen; the absence of hemorrhage also precludes it from being mistaken for placenta.

6. The absence of the fœtal heart-sounds at the usual time; also the result of a superficial examination of the abdomen, for the purpose of ascertaining the uterine contents, whether it may contain a dead fœtus, or a mass of these abnormal growths.

*Cases in Obstetric Practice.* By WILLIAM CUMMINS, M.D., Medical Officer, Blackrock Dispensary.—“On the 8th of last November I was engaged to attend Mrs. —, aged from 30 to 35, in her first confinement; she was then in the ninth month of pregnancy, and I was informed that she had suffered much during the entire period from gastric irritation, accompanied by constant acidity of stomach; that these symptoms had increased of late, and that enormous swell-



ing of the lower extremities, with a rash over the entire body, had been superadded within the last few weeks.

“ I immediately paid her a visit, and found her in the following distressing condition:—

“ The skin is completely covered with a papular eruption, which is a constant source of torment, and prevents sleep, by the irritation it occasions. The normal plethora of pregnancy has been increased tenfold by the anxious but injudicious care of her attendants, who have been constantly forcing the richest and most nourishing food upon her unwilling stomach, with a view to supporting her strength against the hour of nature’s trial.

“ The skin is hot, the pulse quick, the tongue somewhat coated; the abdomen, which is enormously enlarged, is supported by two limbs of colossal magnitude; so great indeed is the swelling that the thighs cannot be approximated; there is besides an erysipelatous blush over both legs, and the bowels are habitually costive.

“ I commenced my treatment by countermanding all orders for nourishment, and prescribing the blandest possible diet, with saline purgatives; then, as I believed the rash to be principally occasioned by absorption of the excess of acid in the stomach, I ordered alkalies, and in a day or two followed these measures up with a gentle mercurial and diuretics, and an occasional opiate at bed-time.

“ The unpleasant symptoms were soon palliated, but the swelling of the lower extremities continued, with only slight decrease, until labour set in, which it did on the morning of the 13th, with trifling pains, which continued during the day, and effected a moderate dilatation of the os uteri.

“ From the first, however, the vagina was extremely tender, hot, and dry, so that I had to keep her more or less under the influence of tartar emetic. Towards evening the vagina could scarcely be touched, so great was the tenderness; the pulse also became quick and hard, and the skin very hot. I then took from eight to twelve ounces of blood from her arm, and increased the dose of tartar emetic; she lost a little more blood during the night from the bandage getting loose. Towards morning the pains, which had never been very good, gradually declined, and soon ceased entirely; the abdomen became tympanitic, and enormously enlarged, and she could not lie for a moment in any position except on the back: but with all these unpleasant symptoms I was gratified to find the soft parts relaxing, and that the tenderness, heat, and swelling had almost entirely left the vagina. I now had the benefit of Professor O’Connor’s valuable advice and assistance, who coincided with me in thinking the case a most alarming one, and that delivery ought not to be attempted immediately; we gave her a full dose of laudanum, hoping to compose her for a time.

“ After this she obtained a little sleep, and continued in much the same state, but without uterine action, until 4 P. M., when we administered a drachm of ergot in divided doses. This caused slight

pains, which dilated the os to about half its full size, and brought the fœtal head just within the brim of the pelvis, when they ceased.

“At 7 P.M., the os being dilatable, I applied the long forceps, without difficulty, in the transverse diameter of the brim, and delivered the head; the shoulders remained within the uterus, and it was not without great difficulty, delay, and the use of the blunt hook that the arms were delivered one by one. The child, which was very large, was lost. No uterine contraction followed the birth; and so smart was the hemorrhage that the placenta had to be removed from the uterus, and large doses of brandy given before any contraction occurred.

“Convalescence, assisted by the free use of opium, and an occasional mercurial, proceeded wonderfully well; the rash did not reappear, and the swelling of the limbs gradually subsided; in short, we took our leave at the usual time, our patient expressing herself pretty well. A day or two after, I paid her a visit, when she informed me, for the first time, that ever since her confinement she had suffered great pain during defæcation, although she had perfect control over the motions.

“I had made particular inquiries from the nursetender, during the days subsequent to delivery, as to whether the soft parts were all right, as I had not satisfied myself on that point immediately after the birth, the alarming flooding having demanded our entire attention, and no persuasions being able to induce the lady to submit to my making an examination afterwards. She now, however, admitted the folly of such false delicacy, and with great hesitation allowed me to examine, when I found that the perineum was lacerated as far as the anterior edge of the sphincter ani, and that the vagina and vulvæ were much inflamed. I prescribed a mild mercurial each night at bed-time, gentle saline purgatives, and injections of warm milk and water into the vagina. In about a week the inflammation had nearly subsided, when I commenced cautiously the introduction of candles into the vagina, gradually increasing the size each day; at the same time I applied nitrate of silver freely every second day to the edges of the laceration. This practice was eminently successful; and after a few weeks the laceration had cicatrized as firmly as if sutures had been used; the inflammation of vagina and vulvæ had also ceased without leaving any adhesion or other untoward consequence.

“During utero-gestation the system is in an intermediate state between health and disease, and nature is obliged to adopt prophylactic measures, to prevent the necessary physiological condition of overaction or plethora from running into the pathological. The natural sympathy between the uterus and stomach, by which the latter is rendered intolerant of excessive nourishment, is the partial closure of nature’s floodgate against repletion of the vascular system. In the case I have brought forward a train of suffering and most alarming disease was the consequence of art interfering with this wise

provision of Providence; and it is an error into which ignorant people are continually falling, believing that as two beings are to be supported, a double supply of food is necessary, forgetting that the woman is created to support her offspring, and that it is only when a second being is to draw nourishment from her womb or breasts that the menstrual blood can be retained in her system without injury.

“It is fortunate that we do not often meet with such complications as this case presented, for if powerful uterine action coexisted with the condition of the vagina and vulvæ I have described, most appalling laceration would certainly have occurred; I believe firmly that this lady’s life would have been sacrificed, or the rest of her days would have been spent in loathsome misery, far worse than death, had not the lancet been used. There was no time for relieving the plethora and inflammation by any less direct means; it was one of the many exceptions to the general rule that ‘the blood is the life.’ Before bleeding, the gentlest vaginal examination produced such agony that the patient’s shrieks could be heard far from the house, and more than once I had to give over the attempt as impracticable. After bleeding, I was able to pass the blades of the long forceps, and draw the head through it without much suffering. What an answer to the absurd doctrine, so prevalent in these days of hydropathists and homœopathists, that venesection is never justifiable, much less necessary! I will now turn to the great delay and difficulty which occurred between the birth of the head and shoulders.

“It will be remembered that when the long forceps were applied, the os uteri was *only about half dilated, but dilatable*. Now it has occurred to me (though I find no mention of it in authorities), that although it is very easy to mechanically dilate such an os to the fullest extent, and draw a full-sized fetal head through it, *while the mechanical dilating force is still holding open the lips of the womb*, yet that the dilating force having been removed, a reclosure of the lips may impede the passage of a much smaller part, unless it be *sufficiently wedge-shaped* to effect a dilatation for itself, which I think the shoulders may not be in many cases, and certainly are not when the inferior part of the body has been delivered, and the shoulders, with the arms upraised, remain within the uterus, as in the following case:—

“Mrs. Pead, dispensary patient, mother of three still-born and two living children, when daily expecting her sixth confinement, was standing quietly in her bed-room when the membranes suddenly gave way without any pain; the liquor amnii in large quantity escaped, and immediately after the arm of the fetus was protruded between the vulvæ. This occurred on the 4th of November last, at 8 P. M. I was called to her at midnight. There had not been a trace of labour pain, though the entire forearm was hanging out between the thighs; I immediately introduced my hand, found the os imperfectly dilated, but dilatable; turned the child, and brought down feet. I then paused, and gave her a drachm of ergot in divided doses;

it produced no pain of any moment. Fearing the fœtus might be lost, I now drew down the feet gently, fully expecting to be able at once to complete delivery, but, just as the umbilicus had passed the external parts, and the shoulders were engaged in the right oblique diameter of the pelvic brim, it stuck fast, and no extractive force that I could use advanced it one step further. Of course in a short time the fœtus was lost, so that I had time to pause an hour or so, hoping for uterine action, but none came on. I now set to work resolutely to deliver, and first endeavoured, as I had done before the child's death, to hook down the limbs with my fingers, but it was impossible. I then passed the blunt hook over one shoulder, and after several unsuccessful attempts succeeded in drawing it down until one arm escaped from the uterus; then it was easily drawn out of the vagina with the finger. I had to repeat the same process with equal difficulty for the other arm. I then perforated the head, and having fixed the crotchet firmly, finished these troublesome operations by delivering the head. Strange to say, though there had not been a labour pain from first to last, there was little or no hemorrhage. Convalescence was rapid, so much so that the patient was sitting up by the fire (not with my consent) in a week.

“If the loss of the child, and all the trouble and difficulty which occurred in this case, were not caused by imperfect dilatation of the os uteri, I confess I am at a loss what to attribute it to, for the child was not larger than usual; and although I think there was some slight contraction of the pelvic brim, yet certainly it could not have been enough to impede the *shoulders*, as the patient had previously brought forth living children at the full time. Further, the position of the long diameter of the shoulders in the largest diameter of the pelvic brim was the most advantageous possible. Then there were no tumour or other impediment, so that, unless we admit the possibility of atmospheric pressure as the cause, it must have been imperfect dilatation of the os uteri which detained the shoulders. It will be said that the shoulders ought easily to pass through the os, which admitted my hand. True, if they were as capable of dilating it; but I deny that they are, for, independently of their being essentially passive, whatever little wedge-shape they may have when presenting at the brim *after the head*, they certainly have none when presenting the other way with the arms raised.

“But, to conclude, what practical points are we to derive from these cases? I fear, none in the first, except the satisfaction of knowing the cause of the difficulty; but, in cases similar to the second, a most important one, *viz.*, having turned the child in the uterus, to wait until uterine action sets in and naturally expels the child, instead of endeavouring to complete the delivery at once.”

## TRANSACTIONS OF THE BELFAST MEDICAL SOCIETY\*.

SESSION 1857-58.

(Continued from p. 249.)

APRIL 6, 1858.

THE PRESIDENT in the Chair.

MR. BROWNE gave the following account of a case of *Amputation at Hip-joint* :—

“The subject of the following brief remarks first came under my notice on the 1st of February, when I took charge of my wards in the General Hospital for the Spring Session, and when I obtained the short account of the case I now beg to submit to the Society.

“H. C., aged twenty-one years, of strumous appearance, though possessing considerable muscular development, in the month of July, 1857, sustained a simple fracture of the left femur, at the junction of the upper and middle thirds, by falling over a cask on the quays at Liverpool; for this injury he was admitted into the South Hospital of that city, where he remained for nine weeks; at the end of that time he was discharged with the fracture united, and he was able to walk pretty well, and without pain, by the assistance of a crutch. At the time referred to, there was considerable swelling around the injured part, and which remained stationary in size. He continued to move about, though still unable to work at his trade as a ‘moulder,’ till near the end of November, when one day, walking along the street here, he made a false step, and ‘perceived,’ as he expressed it, ‘a severe jerk in the seat of the former injury;’ smart pain immediately after ensued, and he felt necessitated to remain in bed. In about a fortnight or three weeks after, when turning on his couch, he felt the fractured part again give way, and at once experienced inability to move the limb.

“On the 24th of December he was admitted into the accident ward of the General Hospital under Dr. Murney; at that time there was complete mobility in the fractured part, but without any eversion or shortening of the limb; and there was a large hard mass about the seat of the injury, which was considered then to be an excess of the callus which in the reparative process had been thrown out. The limb was then carefully bandaged, and a Liston’s long splint applied, extension and counter-extension being made in the usual way. During the six weeks which elapsed before I had charge of the case, the only visible change that occurred was the slow, progressive enlargement of the swelling at the point of fracture, which led to the belief that some disease of the bone had taken place.

\* These Transactions are furnished to us by Mr. Browne, President of the Society.—ED.

“On the 5th of February I took down the limb, and then carefully examined the affected part, and at once came to the conclusion that not only was there a want of union, but that considerable disease of the bone existed. Up to that time, I may remark, the patient had suffered scarcely any pain in the part; but on the occasion of the examination referred to, considerable handling and movement having taken place, he experienced a great deal of suffering for three or four days, during which time the tumour visibly increased, especially in front towards the groin. It is worthy also of note, that till this time, and when the patient learned that there was some disease of the bone, his general health had been excellent; appetite good; the circulation tranquil; and sleep natural.

“Between the 8th and 14th of February several consultations were held by the attending and consulting surgical staff of the Hospital, when, although some difference of opinion as to the nature of the disease took place, there was, with one exception, an unanimous admission that the only chance for the poor fellow's life was amputation of the limb at the hip-joint. With regard to the views entertained relative to the character of the disease, the generality inclined to the belief that the affection was then one of a non-malignant nature, an opinion which I strongly entertained from the characteristics of the tumour, the history and progress of the case, and the general aspect of the patient.

“Previous to the examination on the 6th of February the swelling felt almost solid, without any signs of softening at any point; but at the period of the second consultation on the 10th, the tumour had not only increased considerably in size, but, upon pressure, conveyed to the touch a sensation of fluctuation produced by a deeply seated fluid, and this sign, I may here observe, was increased whenever the swelling was much moved or handled. At this time it was deemed judicious to explore the tumour by puncture; accordingly, I introduced into the most prominent point of it a fine exploring trocar, for some three inches in depth; from this puncture some blood alone flowed, and that very freely, as if from a large vessel or sac containing blood; about an ounce was permitted thus to escape, when the puncture was closed by a strip of adhesive plaster. This fluid was immediately placed in the field of the microscope by my colleague, Dr. Murney, when nothing but healthy blood globules were discovered. That was on the 14th of February. The circumstances of the case were then freely explained by me to the patient, and that his only chance, and that not a good one, rested on the operation at the hip-joint; and, in justice to myself, I must say that I did not speak by any means encouragingly of the result. The poor fellow, however, after some consideration, determined to take his chance, and I then made preparation to operate with all practicable safety.

“On the day preceding that appointed for the operation it was considered advisable by my colleagues, who attended the final consultation, to make a still further exploration by means of an inci-

sion and the introduction of a long canula; this was done, and a canula, eight inches in length, was introduced by a small incision through the integuments; through this, fluid blood, which coagulated quickly and firmly, flowed quite freely; about four ounces were allowed so to escape; and on moving the canula about gently, it came in contact with the bone, which was felt to be rough and spiculated. On removing the canula, and closing the incision by means of a strip of plaster and compress, the swelling felt softer, and the sensation, to the touch, of fluctuation became more distinct. On the following morning, at half-past 9 o'clock of the 17th February, assisted by my colleagues, I proceeded to operate. That morning my patient had been prepared by taking an egg beat up with milk, and two ounces of brandy, and previous to his leaving the ward he had another ounce of spirits. Having been placed upon the table, and brought under the influence of chloroform, he was put in the proper position, and my assistants assigned their several posts. From the size which the swelling had attained upwards, encroaching on Poupert's ligament, and which increase had been very rapid for several days, it was considered advisable, to avoid probably diseased structure, not to make the anterior flap, in the usual way, by transfixing and cutting from within outwards, but to make a flap of the integuments, and then divide the muscular structure by a circular sweep of the knife. All things being prepared, and the circulation in the femoral vessels fully commanded by pressure made upon the anterior iliac artery, which was ably done by Dr. Pirrie, I made a semicircular incision through the integuments by a rapid sweep of the knife; this incision commenced over the edge of the pectineus muscle, and terminated a little outside of the anterior spine of the ilium the greatest circumference of the flap being about eight inches from Poupert's ligament. This flap was raised by a few rapid touches of the knife, and perfectly healthy muscular structure exposed; having placed the point of my finger on the femoral, which was almost laid bare, and finding that the circulation in it was completely controlled, I at once cut right down upon the hip-joint and through the adductor muscles. The instant the knife made this incision an immense gush of blood took place, evidently from a large cavity which contained some pints of that fluid, and from the vessels of the limb below the incision, very little being lost *directly* from the femoral vessels, as Dr. Moore most promptly seized them, and as Dr. Pirrie still had command of the circulation. At this stage of the operation it was considered the safest step at once to secure the femoral vessels; consequently, ligatures were rapidly placed both upon the superficial and deep arteries, and also on the femoral vein. On then feeling for the head of the bone, to proceed to disarticulate, I found that the entire bone had disappeared from the point of fracture to the acetabulum; I at once, therefore, passed the knife behind the point of the remaining bone, and cut a large-sized flap from the back of the thigh: in this incision only one or two twigs, of no importance, were divided, the knife entering the soft parts far below the trunk or main branches of either

sciatic or gluteal arteries. As the patient was now evidently greatly weakened by the loss of blood and shock, and as considerable venous oozing was going on, I applied a strong solution of matico to the face of the stump, which I then closed, and firm pressure was made over it by the hands of assistants, while restoratives and stimulants were exhibited to the patient, so soon as the diminished effect of the chloroform permitted him to swallow. After some time he was removed to a heated bed, and warmth was applied by means of hot-water pans placed around him. Beef-tea and stimulants were administered at intervals, as the stomach could bear them. The shock to the nervous system appeared to produce the greatest effect, for although considerable heat of body was restored, and the pulse greatly improved, he laboured under that depression which often follows severe injury without any loss of blood. Up to 8 o'clock in the evening he seemed likely to rally, but about a quarter to 9 greater depression ensued, and he sank at half-past 9 o'clock, twelve hours after the operation.

*Remarks.*—The first matter to which I shall refer in my remarks upon this case is the nature of the swelling. I have already stated, that upon the first deep incision being made, an immense gush of fluid took place, as from a cavity that had been filled by it; but besides this a very large quantity of coagulated, or, what appeared coagulated, blood was detached from the cavity or cyst; this coagulum was at some points intermingled with lymph-like matter, and which I believe was lymph; this coagulum amounted to about four pounds.

“On examining the face of the stump, both the front and posterior flap, but especially the latter, presented a lining membrane precisely like the usual pyogenic membrane, which had lined the cavity in which the mass of fluid and coagulum which escaped from the limb had been lodged, and this membrane was peculiarly well developed around the part where the femur had been broken, and for some distance down the thigh, in a couple of pouches, one on either side of the limb. The bone was completely absorbed between the point of original fracture and the cartilage of incrustation on the head of the femur; this latter I picked out of the acetabulum after completing the incisions.

“Before the operation, some difference of opinion arose as to whether the tumour was one of the encephaloid kind; my own opinion was in the negative, and in this I became confirmed after the examination I made by puncture the evening preceding the operation, and also from the rapid increase of the tumefaction upwards which took place during the night, and whence I was led to believe that the tumour was composed almost or entirely of blood; and the more especially when I remembered a case of acute necrosis of the femur in which I amputated at the trochanters, and in which, on the evacuation of a seeming abscess, situated on the inner side of the thigh, the fluid was found to be composed principally of blood, and where the sac filled again with blood in the course of a few hours after the first evacuation. On removing the limb in this case of



necrosis, we found a large cavity along the inner side of the thigh, which was lined with a true pyogenic membrane, and it was this which had filled with blood shortly after the fluid it at first contained had been evacuated; this blood, we found, had been poured out from vessels that had become ulcerated in the progress of the disease. Something of a similar kind occurred, I am satisfied, in the case under consideration, as the swelling increased so rapidly after the limb had been moved about, and after the exploratory punctures; and at the time of the operation this fluid was pushing its way up under Poupart's ligament, and extending behind the sheath of the femoral vessels. That the great mass of the swelling which existed was composed principally of blood altered and unaltered in character, there cannot be any question; and while I am not prepared to deny that the disease had assumed a malignant type—cancer-like cells having been discovered by some examiners under the microscope—I am clear that the growth did not present any of the characteristics of the encephaloid form of disease, as seen either in the soft parts or in bone; nor do we find in such growths the existence of the distinct lining membrane which was found in my case. In fact, as I said before, the mass consisted of blood unaltered in appearance, and of an oily red and grumous fluid, like what has been described as existing in osteomalacia. This grumous matter, Solly remarks, shows a cell-development, and is probably an adventitious morbid growth, and not simply fatty matter altered by the effusion of blood into it.

“ At all events, the case is one of great interest: a healthy, sober man sustains a simple fracture of the femur; this unites, seemingly all right; four months after, he slightly injures the part by making a false step, not by any direct blow; and a few weeks after, the union of the fracture gives way while the patient is turning in bed; and five months after the apparent sound repair of the fracture, the bone, on amputation, is found to have entirely disappeared from the point of original injury up to the cartilage of incrustation.

“ I believe we were right in attempting to save life by the perilous operation performed; for there cannot be any question but that the disease must have proved fatal within a very limited time. The nature of the tumour was a question of great obscurity, though its fatal tendency was one of equal certainty, and the appearance of the parts after amputation ‘fully justified,’ as one of my colleagues remarked immediately after the removal of the limb, ‘the attempt made to save life, no matter what the issue of the operation might be.’

“ The patient, as I have already remarked, sank more from the shock to the nervous system than from the loss of blood, and this shock, the effects of which are so much greater in some persons than in others, we are not able either to anticipate, control, or avert. Some of the members may be desirous to know the statistics of amputation at the hip-joint; therefore I beg to say that 127 cases have been operated on, and 77 have died. In 47 amputations after injury, 35 proved fatal; in 43, for chronic disease, 24 recovered, and 19 died. All the cases of hip-joint amputation in the Crimea, 12 in

number, died. I should say these statistics are taken from Mr. Erichsen's last edition of his Surgery, with my case added."

PROFESSOR GORDON stated that Mr. Browne should have noticed that he, Dr. Gordon, had dissented from the operation, on the ground that he had no doubts of the malignant nature of the tumour; and he wished it to be distinctly borne in mind that he had not been a consenting party, and had, consequently, not attended the two final consultations. He looked upon the complaint as one of true medullary sarcoma, and that any operation must prove worse than useless. He did not observe the existence of any membrane lining the cavity.

DR. MURNEY remarked he had watched the progress of the case attentively, as it was one presenting many features of great interest. He believed, although there were several questions of considerable importance arising out of the history, and comparatively obscure progress of the patient, for the two months preceding the operation, yet there were two points on which he would occupy the attention of the Society for a few minutes:—1st. The nature of the disease; and 2nd. The propriety of operative interference. Before entering on these questions, he would refer to one remark which had fallen from the President, viz., "That the tumour on the upper part of the thigh was looked upon as a mass of callus." Such opinion he did entertain from the patient's account of himself at the time of his admission, but when the man had been some little time under treatment, this mass had attracted his suspicions; it was no longer looked upon as a healthy deposit.

So long as the patient considered he laboured under a simple fracture of the thigh, he slept well, had an excellent appetite, and was, in fact, getting fat; but immediately after the first exploratory examination, when he was informed the disease would certainly deprive him of his limb, and perhaps destroy life, the anxiety of his mind caused him to become sleepless and nervous, with loss of spirits; and from that time, too, his appetite failed; but at no period had he symptoms which, in Dr. Murney's opinion, would indicate the presence of malignant diathesis; on the two occasions on which explorations were made, the microscope indicated merely the presence of blood. After the removal of the limb, he had examined the mass which formed the tumour; during the operation it was fluid, and entirely of the appearance of blood. One quarter of an hour afterwards there was a number of coagula, of the consistence of an imperfectly formed clot, surrounded by fluid, the mass appearing to be blood, with a number of fibrinous-looking spots and streaks scattered through it. On microscopic examination with a power of 300 diameters linear, the greater portion of the mass was blood; the fibrinous-looking material attracted considerable attention; and lest there might be any mistake, he had examined several specimens on three or four different occasions; on each of those a number of cells was seen presenting the usual appearance of such structures found in malignant growths, but re-agents certainly did not produce the effects noticed in such cases; for instance, there was no increase in the size of the cells on application of water, nor dimi-

nution on addition of syrup; acetic acid did not in any way alter the cell-wall or nucleus, and liquor potassæ did not produce the usual results. From these circumstances he considered the mass of the tumour contained nothing but blood and cartilage cells; the latter might be looked for as normal elements of the ossifying process at the site of a fracture. In their physical appearance, especially where met without the hyaline solid blastema, in which they are usually seen, as on articular surfaces, &c., they are not unlike cancer cells, and in some instances are only to be distinguished from them by the effects of re-agents. Finally, he was of opinion the case was to be looked upon as an example of the second form of sanguineous tumour of bone, as described by Mr. Stanley.

Referring to the second question, viz., the propriety of operative interference, Dr. Murney said the obscurity of the symptoms prior to the operation had not enabled him to make up his mind whether the disease were malignant or not; he had often stated he thought the weight of evidence was in favour of a non-malignant character; and if such were the case, he was sure all would agree that the patient's prospect would be favourable if he survived the shock of that most serious operation, amputation at the hip-joint. If the affection were malignant, however, not to operate was to leave the sufferer to certain death; and in the absence of symptoms of carcinomatous disease in any other situation, by removal of the limb, a chance for life, however remote, was given. Under all circumstances, he believed the operation was fully warranted. Bearing on this question, he observed, in the second volume of Mr. Paget's Lectures on Surgical Pathology<sup>a</sup>, the following remarks, which he considered so directly applicable, he would take the liberty of placing before the notice of the members:—"A motive for operations in cases of supposed medullary cancers may often be drawn from the uncertainty of the diagnosis. This is especially the case with those of the large bones, for the removal of which the peril of the necessary operation might seem too great for the probability of advantage to be derived from it. I have referred to cases of cartilaginous and myeloid tumours of bone (pp. 181, 215, 219), in which, during life, the diagnosis from medullary cancers was, I believe, impossible. In all such cases—and I am sure they are not very rare—the observance of a rule against the removal of tumours, or of bones believed to be cancerous, would lead to a lamentable loss of life. All doubts respecting diagnosis are here to be reckoned in favour of operations."

The PRESIDENT begged to say that he was quite willing to admit that Professor Gordon had opposed the operation; but he must remind the Professor that there were four opinions against his, and each of which was as freely expressed as his own. He felt quite satisfied about the existence of the pyogenic-like membrane to which he had referred, and he also insisted that the great mass of the tumefaction was composed of blood. He was happy to hear the clear views entertained by Dr. Murney, and he fully agreed with all the remarks which he had made regarding the case.

<sup>a</sup> Page 410.

*An Historical Critique on the Cure of Popliteal Aneurisms by Digital Compression; with reference to several Communications made to the Société de Chirurgie.* Drawn up by AR. VERNEUIL, Fellow of the Faculty; Surgeon to the Hospitals.

SINCE the publication of the valuable work of our excellent friend, M. Broca<sup>a</sup>, the question of the treatment of aneurisms has been reopened, and compression has resumed a pre-eminence it ought never to have lost. Perhaps this is, to a certain extent, to be attributed to the legitimate crusade waged with so much ardour against the surgery of the knife. However this may be, the Société de Chirurgie has latterly had the good fortune to receive three reports of aneurisms cured by compression performed with the fingers.

We had lately announced the communication of M. Vanzetti, of Padua; at the same time, a work by M. Michaux, of Louvain, containing a similar case, reached the Society: so that we shall, without further delay, proceed to bring the subject before our readers.

With reference, first, to the new facts: it occurred to M. Vanzetti, who had seen compression employed in Dublin in 1843, to substitute, for the mechanical means there used, the hand of several successive assistants. In 1846 he made a trial of this mode at the Hospital of Kharkoff, in Russia, conjointly with M. Serebriakoff, surgeon to the hospital. He himself instructed the persons intrusted with the maintenance of the compression as to the place and manner in which it should be employed. The compression was kept up for two days, but without effect. The patient was operated on by ligature.

Eight years later, in 1854, M. Vanzetti received under his care in hospital, at Padua, a mason, aged about 36 years, of tolerably good constitution, labouring under a well-marked, though medium-sized, popliteal aneurism.

The pulsation ceased as soon as the femoral artery was compressed. M. Vanzetti resolved to employ compression; but, discouraged by the failure just alluded to, he tried a great number of compressors, with much patience on his part, and much inconvenience to the sufferer. Before resorting to tying the femoral artery, he wished to try digital compression once more, in the hope that, under his immediate superintendence, it would prove more successful. Several assistants—seated or standing, sometimes with one hand, sometimes with both hands placed one over the other—compressed the artery with a *very moderate force*, sufficient to bring the walls of the artery together, but without inconveniencing the patient. The situation chosen was the middle third of the thigh, in order that the profunda artery should not be obliterated.

At the end of twelve hours there was considerable diminution of the expansive movements of the tumour. At the end of forty-

<sup>a</sup> "Des Anéurysmes et de leur Traitement." Paris: 1856.

eight hours there was no pulsation, nor could any bruit be heard and the compression was withdrawn. There was no relapse. The tumour in the ham gradually disappeared, and, at the same time, the leg became straight again. This man has resumed his occupation; he walks without limping, and experiences no inconvenience in the movements of the knee.

The second case is still more remarkable. In 1855, a very intelligent officer, aged 27, consulted M. Vanzetti for a popliteal aneurism of the right side. The employment of digital compression was resolved on, but was deferred for twenty days. During this period the patient himself made compression, the action of which had been explained to him. The tumour, which was of small volume, seemed to diminish even under the influence of these imperfect attempts.

The real treatment was commenced at noon, and was confided to six intelligent and reliable assistants. At 6 o'clock, M. Vanzetti returned to see what state things were in. The patient was fast asleep; not one of the assistants was with him. Great was the surgeon's surprise; greater still was his astonishment when he learned that after FOUR HOURS of careful compression, *the aneurism had become still*, and that its pulsations had completely ceased! Accordingly, at 5 o'clock, that is, an hour after, the assistants had withdrawn. The patient remained at the Clinique for a month. He was seen again several months later; there was no lameness, and the movements of the limb were free. The aneurismal tumour was converted into a solid nucleus of the size of a filbert.

Such are the facts furnished by the Paduan surgeon, and which he has put forward with the most remarkable clearness. M. Marjolin, in his turn, has communicated two cases reported by M. Michaux, of Louvain, one of the most distinguished of foreign surgeons. The first is a long surgical drama, commencing with double and intermittent compression, and ending with amputation of the thigh, rendered necessary by gangrene of the limb after ligation of the femoral artery. This case is one of great interest; but as it does not bear directly on the point under consideration, we shall not further allude to it. The details may be found in the *Bulletins of the Society.*

The following is a succinct analysis of the second case:—

A man, aged 50, of good constitution, who had always enjoyed excellent health, complained, for the first time in 1851, of rheumatic pains in the left thigh. In August, 1856, the patient discovered, at the anterior and inner part of the thigh, a pulsating tumour, situated nearly two and a half inches from the crural arch. Its progress was rapid, for in the month of November it measured five and a half inches in its transverse and four and a third inches in its vertical diameter. It presented very distinctly all the signs of aneurism. The complete examination of the patient denoted a general alteration of the arterial system; abnormal sounds toward

the centre of the circulation, and a rather rough souffle in all the large arteries. The other functions were tolerably well performed.

What treatment was to be adopted? If ligature was to be employed, it should be applied to the external iliac, always a serious operation, especially when the vessel is altered. On the other hand, alternating compression with two pads was not compatible with the very high situation of the tumour. M. Michaux decided on making single compression on the ilio-pectineal eminence, with the small pad of M. Broca's apparatus. The treatment was commenced on the morning of the 28th of November; the compression was to be intermittent, that is to say, every four or five hours the apparatus was to be loosened to allow the patient to rest. The next day, the severity of the pain rendered it necessary to suspend the compression for four hours. On the 30th, a vesicle had formed on the surface of the compressed skin; the pressure was again suspended for four hours. The pad was placed a little lower; compression was alternately suspended and re-established, until the 2nd of December, as the presence of vesicles indicated the formation of an eschar.

During these four days the pain had been extremely severe, especially in the loins and in the heel. There was complete want of sleep, notwithstanding the employment of opium; the patient was very much fatigued, and nevertheless the tumour had diminished in size, and had become hardened; on several occasions, when the permanent compression had been prolonged for four or five hours, the pulsations had disappeared. M. Michaux then thought of using digital compression; by good fortune, a portion of sound skin remained within the eschar, where the application of the finger was sufficient to arrest the pulsations. The pupils of the hospital applied themselves to the task with the greatest zeal, on the 5th of December, at half-past 9 in the morning; the compression was to be total; the pulsations of the artery being energetic, tolerably strong pressure was necessary to obstruct the vessel.

Compression was very painful on account of the vicinity of the eschar. In the afternoon, œdema, tingling, numbness, and rigidity of the limb were present; the feet became cold; there was complete want of sleep, as well as acute thirst, intense fever, and violent colic, at 2 o'clock in the morning; but the tumour became perceptibly solidified; the pulsations diminished; soft clots filled the sac. The local improvement continued without interruption; at 9 o'clock in the morning, twenty-four hours after the establishment of the digital compression, the pulsations and the bruit de souffle entirely ceased. The arteries no longer pulsated below the aneurism, but above it, on the contrary, the commencement of the femoral pulsated strongly.

As a matter of prudence, the compression was kept up until 2 o'clock in the morning; it was then interrupted for half an hour, to afford some respite to the unhappy patient, after which it was resumed until 9 o'clock in the morning, to be finally given up.

I stop here to impress more forcibly the mind of the reader, and

I pass in silence over the details of the general treatment, which was very ably conducted during all this period, as well as during convalescence. On the 14th of December the eschar separated; it involved the entire thickness of the skin. On the 16th of January the wound had cicatrized. On the 24th the patient left the hospital perfectly cured. The aneurismal tumour was very hard; it is still of a tolerably large size (two inches by two and three-fourths), but the cure is no longer doubtful.

Did they stand alone, the remarkable cases just reported would suffice to commend digital compression strongly to the attention of surgeons. What objection can there be to a proceeding which cures popliteal aneurisms in five hours—even in forty-eight hours; a considerable aneurism of the femoral in twenty-four hours? What, without digital compression, would have been the fate of M. Michaux's second patient? Let us observe that, in two cases, no resource remained but the ligature; the insufficiency of compression by means of apparatus was palpable. If M. Broca had had these facts before him when he was preparing his book, he would certainly have modified the chapter he has devoted to the operative proceeding we are speaking of. Without tracing, step by step, the history of digital compression, we may be permitted here to discuss with our learned friend some of the propositions he has announced in his book.

While he considers digital compression to be "a very valuable resource," M. Broca regards it as a means which we must reserve for the following cases:—1. When the deviation of the limb does not permit us to act efficiently on the artery by means of mechanical apparatus. 2. When excessive irritability of the skin is opposed to every other species of compression.

Now, the latter condition alone existed, and in but one of the three cases above quoted. The two other cures show that it is advisable to enlarge the scope of the process. On further consulting the facts collected in M. Broca's book, I find another very remarkable case, that of Mr. Greatrex. The alternating employment of a compressor *and of the patient's fingers* put a stop to the pulsations at the end of twenty-four hours.

In a case of Mr. Knight's, compression with apparatus could not be borne for more than an hour. Forty hours' continuance of digital pressure on the pubis was sufficient to insure a cure.

To crown the work, we have the curious case of the patient under Mr. Colles' care, who cured himself by keeping up for seven days a digital compression, which was necessarily very imperfect.

It is far from being my intention to conceal the tolerably numerous failures of this process. But, on the whole, what have we lost when we have failed? Nothing; even when the means employed prove unsuccessful, as happens also occasionally with compression by apparatus. It appears to me that digital pressure has been less painful for the patient than the latter, which may then be advantageously substituted for it.

For my part, notwithstanding the constantly progressive im-

provements of apparatus, which, according to M. Broca, render the cases very rare in which digital compression is indicated, I consider, with him, that it constitutes the type of the method, and that consequently it is only in extreme cases that we ought to draw back from the difficulties of its application. In common with M. Michaux, I can scarcely doubt that, in the immense majority of cases, we should be able to find the devoted co-operation of a sufficiently large number of assistants to take part in an enterprise as noble in a humane, as it is interesting in a scientific point of view. Hitherto digital compression has most frequently been employed only after mechanical compression. I think that, hereafter, we should proceed in exactly the inverse direction, and, when compression is indicated, commence with the pressure of the fingers before having recourse to a less gentle process.

Perhaps it will not be uninteresting to take a rapid survey of the cases of aneurism in which digital compression has been employed, whether alone or combined with mechanical pressure.

These trials, in number seventeen, include seven unsuccessful and ten successful cases. I shall add some explanatory remarks on the two categories<sup>a</sup>.

FAILURES.—*Four times* compression was employed primarily—that is to say, before any other means. A. Popliteal aneurism; two days' compression; ligature (Vanzetti). B. Popliteal aneurism; four hours only, then mechanical compression for six days (Jameson). C. Diffused aneurism of the femoral; sixty-two hours; apparent cure, which proved not permanent; seven days' compression with a weight on the groin; decisive cure (Parker). D. Popliteal aneurism; digital compression maintained by convalescent patients for three days; mechanical compression, previously intolerable, was rendered possible; a cure was obtained (Monro, J.).

In two instances, digital compression was not employed until after the insufficiency of apparatus had been demonstrated, and their use abandoned:—E. Diffused aneurism of the ham; sixteen days of mechanical compression; ninety-four hours of digital compression, at the end of which the pulsations and the souffle had disappeared; the success was not permanent; amputation; death (Nélaton). F. Popliteal aneurism; employment of bad apparatus for five days; twenty-four hours of digital compression; ligature; amputation; recovery (Norgate). G. In this instance, both modes of compression failed, but the case was one of inguinal aneurism; compression with the fingers was kept up during four days and four nights; the tumour was greatly ameliorated; the tourniquet having been applied, subsequently produced an eschar; the external iliac artery was tied (Fox).

In these seven cases of failure we find three ligatures subsequently applied, A, F, G; and two amputations for gangrene, E, F.

<sup>a</sup> In M. Broca's work details relating to these facts will be found. I have given only a very brief analysis of them, distinguishing the cases by letters and the names of the observers.



Two ligatures were successful, A, G. One of the two patients subjected to amputation died. Three times, on the contrary, B, C, D, mechanical compression was followed by cure. Even when digital compression had to be abandoned, it modified the tumour advantageously in two cases, C, E. In a third, D, it singularly promoted tolerance of the apparatus.

Let us proceed to the—

**SUCCESSFUL CASES.**—*Two* belong to digital compression, employed primarily and alone:—H. Popliteal aneurism; five hours were sufficient (Vanzetti). I. Colles's patient, who, without assistance, cured himself in seven days of popliteal aneurism, by intermittent, and, of course, very imperfect compression.

*Three times* digital compression succeeded when mechanical compressors were inapplicable, or abandoned:—J. Femoral aneurism; mechanical compression for four hours; after twenty-four hours digital compression produced a cure (Michaux). K. Popliteal aneurism; various apparatus were tried for a long time, and were given up; forty hours of digital compression (Vanzetti). L. Apparatus intolerable; forty hours afterwards, the employment of the fingers; cure (Knight).

*Four times* the pressure of the fingers having been combined with the use of the tourniquet, it is difficult to award to each method its due share of merit. This method, which is equivalent to double and alternating compression, has further produced results so rapid and decisive that, perhaps, we ought to dwell on this combination, which would singularly relieve at once both the patient and the surgeon.

M. Popliteal aneurism; tourniquet below the groin; the patient's finger pressing on the pubis; at the end of twenty-four hours, cure (Greatrex). N. Popliteal aneurism; digital compression on the pubis; below, Dupuytren's compressor; alternating action, forty-eight hours; recovery. O. Same lesion; same mode of proceeding; sixteen hours were sufficient for the cure (Wood). P. The following case, by Mr. Tufnell, is more complicated; in it, however, we find a combination of several modes of compression—Very voluminous popliteal aneurism; compression, according to Bellingham's process, for two days; suspended on account of swelling of the inguinal glands; digital compression on the pubis by the patient and a neighbour; tourniquet acting inferiorly, and alternating with the action of the fingers; the whole kept up for twenty-four hours; the pubic weight\* was then employed; cure at the end of seven days.

Lastly, in the following case, digital compression having been employed conjointly and alternately with apparatus and the direct compression of the tumour, it is difficult to assign to it a precise

\* A conical weight of lead, varying in amount from four to nine pounds, as may be necessary efficiently to compress the artery, where it is superficially situated in the groin. See "Practical Remarks on the Treatment of Aneurism by Compression," by Jolliffe Tufnell, M. R. I. A., &c. Dublin: Fannin and Co. 1851.—TRANSLATOR.

part in the case—Q. Arterio-venous aneurism of the bend of the elbow; direct compression on the tumour for several days, then indirect compression with the tourniquet, which could not be borne; digital compression kept up by the patient, and suspension of every other means; resumption of direct compression on the tumour; digital compression was made by assistants for twenty hours, and then abandoned; it was intrusted to the care of the patient alone; finally, some days after, the aneurism was cured (Nélaton).

We should have more than one remark to make on all these interesting cases, and, in particular, on the place where it is advisable to apply the fingers in cases of popliteal aneurism. Perhaps we should adopt the situation chosen by M. Vanzetti; but this discussion would carry us too far.

In the present state of the question, we may safely announce the following propositions:—

I. Indirect digital compression, continuous, and even intermittent, performed by the able hands of assistants, or by the patient, has succeeded alone, and without the previous or subsequent assistance of any other means, in curing aneurisms.

II. Associated with the tourniquet, and alternating with it, it has produced cures both rapid and extremely simple. In general, when success is to crown the attempt, it does not tarry.

III. Employed alone, it has cured aneurism when mechanical compression was impracticable, or had to be abandoned; much better borne, in fact, than the latter; digital compression may be applied on points where the skin is already inflamed.

IV. “This compression is the most efficacious and least dangerous of all; it enables us to act only on the artery, avoiding the nerves and neighbouring veins, and sparing the skin.”—*Broca*, p. 807.

V. Digital compression may fail; but in this case it most frequently modifies advantageously the state of the aneurism.

VI. We are justified in believing that, alone, it would have succeeded more frequently if it had been practised with more perseverance and regularity than were employed in the above quoted cases.

VII. Never, so far, has any accident been attributable to this proceeding.

VIII. Having been applied successfully, for the first time, by Saviard, subsequently to an operation for aneurism after the old plan, indirect digital compression is essentially of French origin. Hitherto it has not received all the extension and generalization of which, in my opinion, it is susceptible.—*Gazette Hebdomadaire*, 30th October, 1857, p. 773.

*Description of a Deformity of the Thorax, with loss of Substance of the Ribs; followed by Remarks on the Movements of the Heart.* By DR. FRICKHOEFFER, of Idstein<sup>a</sup>.

BLUMDAHIER, son of a master cartwright, a boy of fourteen, labours under a deformity, consisting chiefly in a very decided hump and a lateral curvature of the spine, accompanied by a deviation of the ribs, some of which are imperfect.

The inclination of the vertebral column commences about the middle of the cervical region, is directed at first from left to right and backwards, then almost transversely; and finally, directly from above downwards, thus forming the figure of a turned Roman S.

The greater convexity of the thorax corresponds, therefore, anteriorly to the right half, posteriorly to the left half. The right side deviates inwards, the left outwards, and the greatest transverse diameter of the chest bisects the sternum, and answers to the inferior angle of the left scapula.

The following points, observed on the anterior aspect of the thorax, are worthy of remark:—

1. The sternum is wider than in the normal state, and is directed obliquely from above downwards, and from right to left.

2. Of the left ribs, the first alone is articulated to the sternum; the second terminates at the distance of two and a half inches from that bone; the third, fourth, and fifth descend at first almost in a straight line from the hollow of the axilla, and stop at three inches from the sternum; and the others, articulated to one another by a common cartilage, form from left to right a semilunar arch, and terminate at half an inch from a rudimentary xiphoid appendix.

3. In consequence of this malformation and of the absence of a portion of the ribs, there exists on the left side of the chest a sort of triangle with the base above formed by the first rib and the lower edge of the great pectoral muscle, the truncated apex being directed downwards; at the right superior angle is the nipple; the sides of the triangle are three and a half inches long, its surface is half an inch lower than that of the rest of the chest.

4. In this triangular space are situated the inferior organs of the thorax, covered only by the skin, beneath which the movements of the heart and of a portion of the left lung are distinctly seen.

5. The motions of the heart are observed at the upper angle of the space just described. A movement from left to right is plainly distinguished, and on palpation the impulse of the heart is felt immediately under the skin, appearing reduplicated, and consisting of two shocks, the one longer and stronger, the other shorter and weaker.

<sup>a</sup> It will be interesting to compare this paper, inserted in Virchow's "Archiv für patholog. Anatomic," Bd. x. Hft. 4, with that published by M. Béhier, in reference to Groux, who is affected with a malformation of the sternum, and in whom also the movements of the heart can be observed. See Archives Générales de Médecine, 1855.

The first is isochronous with the systole, the second follows the first and the systole, simulating a weak and rapid rebound.

The motions of the lung are easily recognised by an elevation and depression isochronous with inspiration and expiration, and by the edge of the lung covering the heart gliding alternately from left to right.

6. On percussion it is found that the heart extends from the place where the impulse is perceived to the right under the sternum, and downwards as far as the xiphoid cartilage, and that it has rather a transverse direction from left to right and from before backwards; consequently, it is probable that the part of the heart which pulsates in the triangle corresponds to a portion of the left ventricle.

Moreover, percussion in the upper angle of the triangle yields a clear sound over a circumference of two square inches, which, therefore, covers a part of the left ventricle, and occupies the greatest extent of the triangle; the inferior third furnishes a completely dull sound, and contains the stomach, as well as the left lobe of the liver.

7. Auscultation discloses in the free portion of the heart the two normal sounds, the first being longer, and being emphasized. In the rest of the precordial region the two sounds continue the same, although they are weaker on account of their distance. The accentuation is always laid upon the first, which extends towards the free part of the heart, and corresponds to the stronger impulse already mentioned. The second sound, which is shorter and weaker, corresponds to the second shock, which presents the same characters.

On the contrary, in the region in which, as would appear from the clear sound yielded on percussion, a portion of the left lung exists, a vesicular murmur alone is heard; in the lower third of the triangle, where the dulness is detected, the ear perceives no sound.

In considering this case, we should first bear in mind that it offers some analogy to that of congenital fissure of the sternum presented in the person of M. Groux, whose case has intensely interested the medical world, and led individuals skilled in auscultation and percussion to test its results. In the present case, also, there is a part of the heart covered only by the skin and pericardium, as well as portions of the lung, of the stomach, and of the left lobe of the liver; but instead of a solution of continuity of the sternum, we have an imperfect development of the ribs, and a much more considerable loss of substance of the left side of the thorax.

This anomaly, very striking in itself, acquires a greater interest by rendering it possible to observe directly the motions of the heart; if the latter power does not lead to new results, it is capable at least of refuting or confirming certain controverted opinions.

The first question to examine is this: *What is the part of the heart which we see and touch in the triangle above mentioned?*

We must remember that in consequence of the deformity of the thorax, by reason of which its right half deviates, and its entire cavity is compressed from above downwards and from before backwards, all the organs must be pushed to the left and backwards, the triangle being half an inch below the surface of the rest of the chest.

We should also recollect that the heart, in order to be able to follow, with the arch of the aorta and its descending portion, the curvature of the spine, must be situated higher up, and have a direction rather horizontal than vertical. Comparing the results of percussion, which give the heart a transverse situation from left to right, and from behind forwards, with those of auscultation, which enables us to hear, in the most distinct manner, at the free portion of the heart the two normal sounds, the first being stronger and more accentuated, the character, according to Skoda, of the sounds occurring in the ventricles, while the contrary obtains for those in the arteries, we can no longer doubt that the left ventricle belongs to the part of the heart in question, and probably to its upper third.

The only point on which any discussion could arise is, as to whether we had to do with a portion of the left ventricle, or of the trunk of a large vessel: the character of the sounds appears to me necessarily to decide the question, as I have done.

2. This case, in which we distinctly perceive the shock of the heart towards the free portion of the left ventricle, gives great weight to the opinion of Kiwisch, who admits that this shock does not depend on an impulsion of the apex against the thoracic walls, but on the perception, across the intercostal spaces, of the rigidity of the muscular fibres of the heart during the systole; for in our case the impulsion takes place only in the point corresponding to the left ventricle, consecutively to the systolic contraction, and is perceived in no other point of the thorax. The opinions of Bamberger on the impulse of the heart, in a well-formed subject, agree fully with our observation: the author just mentioned considers as obstacles to the perception of the rigidity of the heart during the systole, in the normal state, the lesser thickness of the right ventricle, which is situated immediately beneath the thoracic parietes; the greater approximation of the superior ribs; the increased thickness of the upper part of the chest; and thus expresses himself in Virchow's "*Archiv*:"—"I have often been convinced that in children and very emaciated persons, the impulse of the heart frequently takes place over a greater extent, and that it is often perceived in other situations than those against which the heart directly beats: let the muscles of the chest in a rabbit be removed to the level of the intercostal spaces, and we shall observe in each point touched by the heart the pulsation of that organ, even when it was not previously perceived."

In the case above described those obstacles do not exist; therefore the normal systolic contraction of the ventricle and the accompanying impulse are perceptible. It hence results that the cause of the shock does not reside in the impulsion of the point of the heart, but in the sudden contraction and rigidity of the two ventricles.

3. As we have seen, a double pulsation might be observed at the free part of the heart,—the one stronger and longer, the other shorter and weaker; the first isochronous with the systole, the second following the first, of which it appears to be a more rapid and feebler after-stroke; moreover, the former corresponds to the first sound of the heart, the latter to the second sound. This observation was so con-

clusive, and the concussion communicated to the hand by the second shock was so distinctly perceived, that no doubt could be entertained; and two medical students, who examined the case with me, satisfied themselves of the existence of this phenomenon.

Is it necessary to object that there is in our patient no affection of the heart, whether dilatation or hypertrophy, and that, therefore, our observation possesses no interest in reference to these lesions, as Skoda\* thus expresses himself on the subject of double pulsation of the heart:—"In several cases of hypertrophy with dilatation of the two ventricles, the systole produces an impulse; the diastole by no means raises the thoracic parietes, but produces a concussion: the latter is not caused by the shock of the heart against the thorax, but appears to be isochronous with the retraction of the heart against the spine. This phenomenon is evidently the same as that designated by Laennec under the name of 'impulsion of the auricles.'"

The second shock observed here appears to me to be much more simple, and to have the same cause as the second sound, with which it is isochronous; namely, the concussion of the column of blood contained in the arteries after the ventricular systole, against the sigmoid valves, and this view is supported by the following reasons:—

*a.* The shock takes place in a space of time which corresponds to the end of the systole; it follows the first systolic shock, of which it seems to be a slighter rebound, and coincides with the fulness of the arteries and the closure of the sigmoid valves. There can be no doubt that, if the impulse of the arterial column is capable of communicating a concussion, this does not affect the whole heart, but only the part nearest the arteries; the shock is too insignificant to be perceived on the normal thoracic walls.

*b.* These researches had led me to this result, that the free portion of the heart corresponds to the upper extremity of the left ventricle. The second sound perceptible in this region might then be attributed, not only to the second impulse, but also to the ventricular contraction; but the authority of Skoda does not allow us to admit this hypothesis:—"We cannot assert that in a heart in the normal state the second sound is always produced in the ventricle, since it is very probable, if not certain, that the second sound heard over the heart occurs in the arteries, and that on account of its intensity, it is perceived at a certain distance; but there are cases in which we are obliged to admit the existence of the second sound in the ventricular region. Sometimes we do not at all, or only feebly, perceive the second sound above the base of the heart, while it is very strong and very distinctly observed at the apex"

But in our case, the second sound does not exist at the apex, while it is very distinct and very strong at the base; it, therefore, evidently takes place over the sigmoid valves, and is propagated farther. The second impulse of the heart, which is isochronous with it, must, according to all probability, correspond to the same point.

\* Treatise on Auscultation and Percussion, p. 152.

<sup>b</sup> *Loc. cit.*, page 187.

We might here admit a recoil movement, contrary to Skoda's ideas, as has been done for the systolic impulse. This recoil is produced during the diastole, before the arrival of a new column of blood in the arteries, by that which is already contained in them, and which falls back upon the tense and closed sigmoid valves, on account of the elasticity of the arterial walls; it might, therefore, be termed a movement of recoil by elasticity.

If, on the contrary, the second sound took place in the ventricle, it would be heard at the apex, and not at the base, and we might, therefore, seek the cause of the second impulse in the shock of the blood against the ventricular walls during the diastole, if we accepted Skoda's hypothesis, that the shock of the column of blood against the ventricular walls, during the diastole of the ventricles, may sometimes produce the second sound<sup>a</sup>.

As to the hypothesis which consists in comparing the movements of the heart to those of a lever, by which Hope explained the impulse of that organ, for which Volkmann lays down restrictions, but of which the truth is rendered very doubtful by the recent researches of Bamberger and Kölliker, at least in its connexion with the impulse of the heart, our case is, in my opinion, little suited to confirm it, for we can observe only too small a portion of the heart, and that of the base alone, and the other anatomical proportions of the chest, are too far removed from the normal state to warrant us in giving a definite judgment on this point. We can merely conclude from the result of our researches, that the supposition of a double force is not admissible, because in this case we should observe, during the systole and the striking of the apex of the heart against the chest, which immediately follows it, a retraction of the upper part of the heart, of the visible part of the left ventricle, as well as of the pectoral wall covering it, while, on the contrary, we observe a projection and connexion of the part of which we are speaking.

4. This case furnishes also some data as to the locomotion of the heart. The movements of this organ, which take place under the portion of the thorax deprived of ribs, demand for their appreciation close attention, because the movements of the heart and lung continually set in play the skin which covers them. But after long observation, we clearly established motions of elevation and depression, isochronous with inspiration and expiration, with a slight gliding of the edge of the lung; finally, an undulating movement of the heart from left to right and from above downwards, isochronous with the systole. This latter movement would be rendered still more evident by tracing with ink a transverse line over the precordial region. This locomotion corresponds, it will be recollected, to the assumed position of the great axis of the heart, and, in all probability, we ought not to consider the contraction and shortening of the ventricles, in their long diameter, as a cause of the inferior motion, an opinion which has very long been refuted; but, on the contrary, the prolongation of the column of blood during the diastole,

<sup>a</sup> *Loc. cit.*, page 187.

or as Bamberger says (*loc. cit.*), the elongation of the large arteries, as Kölliker has recently demonstrated by vivisections. But, in our case, we could not follow the direction of the heart from above downward, while we could follow it obliquely from left to right.

I have been unable to discover, in the case of deformity just described, any proof of the rotation of the heart on its transverse axis.

Such are the remarks suggested to me by the above case of deformity; I lay them before the profession, convinced that a more intelligent and experienced observer will add to their number and their value.—*Archives Générales de Médecine*, December, 1857, p. 709.

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*Note of a Case of Poisoning by Hydrochloric Acid, observed at Pondicherry.* By DR. COLLAS, Surgeon-in-Chief; Head of the Sanitary Service in the French Establishments of India.

CASES of poisoning by hydrochloric acid are rare. M. Devergie, who quotes but a single example of the kind, says so in these very words:—Orfila, who, in the fourth edition of his “*Toxicologie*,” furnished only one instance (the same as that brought forward by M. Devergie) in the fifth edition of the book gives three other cases, none of which, with the exception of that borrowed by both the above authors from Dr. Serres, relates to a recent example of poisoning.

This species of poisoning is perhaps rarer in England than in France, at least if I am to judge by the laconism of the three lines devoted to it by Dr. Taylor in his “*Medical Jurisprudence*.”

Although the Hindoo druggists are perfectly acquainted with the three principal mineral acids, and know how to prepare them, as these acids are employed only by certain operatives, their existence and their properties are unknown to the majority of the population; accordingly, in the interesting work published by Dr. Norman Chevers on the “*Medical Jurisprudence of the Bengal Presidency*,” we find but a single case of poisoning by an inorganic acid—sulphuric acid.

The case of poisoning which this note refers to, probably the first of the kind observed in India, is attended with the greater clinical interest, inasmuch as, setting aside the rarity of this kind of accident, Orfila and the other toxicologists have given no special description of the symptoms of poisoning by hydrochloric acid: they have confined themselves to simply referring to the general indications of poisoning by caustic acids.

On the 5th of October, 1856, at the hour of my morning visit to the *Maison de Santé*, in crossing the entrance court in order to pass from the female to the male side, I perceived sitting on the ground, and supported by several tamijers, Sinivassin, of caste Vannia, aged about 28, by trade a packer; I was told that he had just swallowed a quantity of *néroupoutanir* (literally, fire-water), a name given in Tamul to aqua fortis. I desired M. Lépine, pharmacien of the third class, who attended my visit, to give him immediately



soap and water (common soap, one drachm and a half; water, six and a half ounces), while we sent for magnesia to the pharmacy, which is at some distance from the hospital. A few minutes afterwards, on arriving at the bed in which Sinivassin was laid, I observed the following symptoms:—

The patient was sitting up in bed; he could not lie on his back; he had no convulsive movements; his head was turned very much backward<sup>a</sup>; when questioned, he brought it forward again by a rather sudden motion; but as this position seemed to fatigue him much, he *threw* it rapidly back; the mouth, which was half open, exhaled no disagreeable odour<sup>b</sup>; the respiratory movements were frequent, and were accompanied by an isochronous moan; there was neither stain nor eschar on either the lips or the skin of the face. The gums were sound, but pale; the teeth presented no abnormal discoloration; the tongue was large, and had lost its colour<sup>c</sup>; at its centre, and a little to the left, was observed a furrow denuded of its epidermis, commencing close to the point, and ending near the root, at the bottom of which the papillæ of the organ stood up quite red<sup>d</sup>. The skin was cold; the pulse very small and very quick. The epigastric region was tender to the touch; no urine had passed since the evening before; there was no diarrhœa. The patient vomited neither the soap and water nor half a drachm of calcined magnesia given him by M. Lépine before I reached his bed.

On endeavouring to obtain some information as to how the poisoning occurred, and the quantity of poison ingested, I learned that those who accompanied the patient, yielding to the instinctive love of falsehood which constitutes a prominent feature of the Indian character, deceived me in stating that the poisoning had only just taken place; they also deceived me in asserting that twenty-four hours had elapsed since the occurrence. Finally, however, I ascertained that the evening before, Sinivassin left his work at three in the afternoon to go to a canteen, where he bought for six caches (about three farthings) fermented callou<sup>e</sup>, and drank it; that being

<sup>a</sup> In dogs poisoned with hydrochloric acid, death is almost always preceded by very violent convulsive movements, especially in the muscles of the neck and spine. In certain cases these muscles are so strongly contracted, that the head is turned very much backward, and forms with the spine a curve, the concavity of which is very decided. (Orfila, "Toxicologie," Second Edition.)

<sup>b</sup> A very strong odour exhaled from his mouth at the time of his baptism, and afterwards observed on his death-bed. (Orfila, *in re* Benardel.)

<sup>c</sup> Tongue of a fiery red; lips blackish (Orfila, Dr. Serres' case). "The lips, the tongue, the palate of the child, so tender, so rosy some hours before, were coloured black and hardened (*in re* Benardel). The interior of the mouth and of the lips is red in poisoning with hydrochloric acid." (Orfila.)

<sup>d</sup> All the Hindoos, as well as many of the people of Asia, Africa, and even of the inhabitants of Europe, drink without the vessel touching their lips; in a doubtful case we should not lay too much stress on the absence of lesions, or of stains on the lips or gums.

<sup>e</sup> Callou is the fermented sap of the *Borassus flabelliformis* and of the *Cocos nucifera*. A quart is sold for six caches. My planton often got drunk on three caches'

intoxicated, he went home, where he drank, at seven o'clock in the evening, the half, about two ounces, of a liquid supposed to be brandy, contained in a bottle<sup>a</sup>, found, either the day of the poisoning, or two days previously, in a hedge adjoining his house. Sinivassin was immediately seized with vomiting, and the vomited matters *effervesced* on the ground; he was brought successively to two former pharmaceutical pupils, one of whom, believing he was only drunk, immediately gave him castor-oil, which he threw up at once, mingled with matters apparently bloody; but soon perceiving that he had to deal with a case of poisoning, he had a search made for the bottle, which still contained a portion of the poison, and he believed that he had ascertained that the latter was nitric acid. I at first found it impossible to procure this bottle<sup>b</sup>; but as the pupil alluded to had served a long time in a civil laboratory, and had been employed in the Government Pharmacy, I believed, notwithstanding that I was surprised at not finding the characteristic discoloration on the tongue, that I had to treat a case of poisoning with nitric acid (*pottle ouppou travagam*, in the Tamul language), which is frequently employed by the natives, while they scarcely ever make use of hydrochloric acid (*ouppou travagam*, spirit of salt).

This was a mistake; for, subsequently commissioned, with M. de Nazeille, pharmacien of the second class, to investigate the nature of the fluid contained in the bottle which had enclosed the poison taken by Sinivassin, we easily proved, by means of the most characteristic chemical reactions, that this bottle, notwithstanding the care with which it had been drained, had held hydrochloric acid; but this mistake could not have been prejudicial to the patient, as the treatment of poisoning by mineral acids is the same for all.

It was therefore twelve hours since Sinivassin had swallowed about two ounces of hydrochloric acid; he had vomited copiously, and taken enough of soap-water and of magnesia to neutralize the effects of the small quantity of uncombined acid which could have remained, after this lapse of time, in the stomach; what was I to do? Referring to the general principles of poisoning by acids, Orfila, who sanctions energetic antiphlogistic treatment of "gastro-enteritis developed by acids," only when "the symptoms do not yet indicate ulceration of the digestive organs," advises the administration of mild mucilaginous drinks<sup>c</sup>. M. Bouchardat, attributing

worth; there are other persons who require to drink three or four quarts before they fall into the state of gross drunkenness produced by this beverage.

<sup>a</sup> This bottle was said to have been stolen from the house of a European who was getting work done in metals, either by Sinivassin or by some one else, who, profiting by his intoxication, made Sinivassin drink the acid, saying it was brandy; but as the verdict stated that Sinivassin had poisoned himself, there can be no more than a probability of the truth of this latter version.

<sup>b</sup> It was only after a domiciliary visit that it was obtained.

<sup>c</sup> "If several hours have elapsed since the occurrence of the poisoning, and if, in consequence of copious vomiting, or of considerable alvine evacuations, there is reason to believe that the acid has been totally expelled, the use of antidotes must be given up, and the soothing drinks, of which I have spoken, are to be administered."—*Traité de Toxicologie*, Fifth Edition, page 123.

death in cases of poisoning with acids to coagulation of the blood and consequent asphyxia, recommends a continuance of alkaline substances, which, useful at first as chemical neutralizers, are subsequently advantageous in virtue of their liquefying properties. The Italian school—generalizing a method which has been more than once successful when the poisoning has not given rise to *organic lesions*, applying it with that inflexibility of reasoning which astonishes and seduces beginners and enthusiasts, and makes them believe that the premises from which the deductions are so mathematically drawn must be well established; not taking into account what they study so closely in the natural history of the medicine—would have driven me to disregard disorders produced by the *chemical action* of the acid, and to attend only to the dynamic phenomena it produced; as if it were possible to deny these chemical phenomena, and the fatal reaction which fearful sufferings, and the partial or total disorganization of the gastric mucous membrane, have upon the entire system. As if it could be logical, or even possible, in other cases than those in which the ulcerated mucous membrane is henceforward incapable of reaction, to leave out of consideration that serious form of inflammation of the stomach, *toxicol gastritis*, in order to attend to the dynamical symptoms, to combat a state of depression by means of exciting vinous and alcoholic drinks.

Setting, then, aside the school of Giacomini and Roquetta, I had to choose between the prescriptions of Orfila and those of M. Bouchardat; but, on examining closely, we find that the formula of treatment of the able professor of pharmacy is the result of a theory which is not without analogy to that of the Italian physicians. The latter, in fact, after having rudely reproached Orfila with having, in his treatment of the poisoned, attended only to local phenomena, after having closely studied and accurately classified the symptoms produced by medicines or by poisons, all on a sudden leave out of view the physico-chemical phenomena, otherwise called local, and make the treatment of poisoning consist in that of the dynamic or general symptoms. On the other hand, we cannot avoid reproving M. Bouchardat for omitting the local and vital phenomena, in order to attend solely to the secondary chemical action of the poison on the blood, an action which, incontestable after death, is perhaps not very certain when the living blood is concerned. Analogically, this doctrine would oblige us to conclude that alcohol and sulphuric acid have in reality but one and the same mode of action on the system, the coagulation of the blood, to which, in either case, we should oppose the effects of special alkaline substances, ammonia in the one, magnesia and bicarbonate of soda in the other; alcohol and mineral acids should therefore have, in the main, identical properties! By no other reasoning have the Italians arrived at their celebrated division of medicines and poisons. But these are not the only logical consequences of an exclusively chemical toxicology,—the imperishable axiom, “*naturam morborum curationes ostendunt*” compels us to believe that the venom of serpents, and that of insects

(*à priori* supposed to be identical, and recognised as always like those of the Ophidians), poison in the same manner as alcohol and the mineral acids\*. In fact, what is prescribed in all these cases? Ammonia, which liquefies the blood.

However, the success obtained by M. Bouchardat at the Hôtel-Dieu is undoubted; and I have only to inquire whether cure is due to the liquefying property of the alkalies, "which follow the absorbed acid," and which, themselves absorbed, go "to dissolve the coagula in process of incipient formation." I confess that for my part I shall be as anxious during this second chemical neutralization of the poison (for it is nothing else), as those who fear, when administering bicarbonate of soda, seeing their patients who have been poisoned by an acid asphyxiated by the necessary disengagement of a great quantity of carbonic acid. In a word, how are we to admit that the sulphuric acid contained in the blood<sup>b</sup> shall not displace the acid of the carbonate, which we endeavour to place in excess in that fluid, and how shall we not tremble for the fatal consequences! But it is incontestable that M. Bouchardat has cured cases. Why? Because, by means of from five to thirteen drachms of pure hydrated magnesia, suspended in a quart of water, given previously to the administration of the bicarbonate of soda, to his patients, who had, as is almost always the case, already vomited, he had neutralized the acid, and perhaps also because he had to do with cases which were not very serious; for I doubt that a stomach, not ulcerated, but merely inflamed to such a degree as to produce toxical gastritis, could have borne these solutions of bicarbonate of soda (two and a half drachms to a quart of water), which he advises us to prescribe *abundantly*. Would it not, moreover, be possible that this bicarbonate, long since classed among alteratives, should act simply as an antiphlogistic, as M. Lemaire suggests in a work analyzed by M. Bouchardat (*Annuaire* for 1854).

The cessation of vomiting, and the tolerance of the stomach for fluid, appearing to me to be in Sinivassin's case indications of a profound disorganization of the mucous membrane, I ordered sweetened gum water, chicken-tea, and the sixth of a grain of watery extract of opium, the last to be given every hour in the form of a pill; a large opiate cataplasm was, in addition, to be applied over the entire abdomen.

About 2 o'clock in the afternoon there was a sensible improvement; this was of short duration. At 3 the patient passed about a pint of urine; at 5 he was in agony, sitting up in bed, his head being thrown strongly back, and resting on the top of the pillow which supported him; he raised it when I spoke to him, looked at me, and quickly threw it back again; at 7 he was dead.

\* Bouchardat, "Nouveau Formulaire Magistral," page 54; 1854.

<sup>b</sup> "M. Bouchardat, who has published this observation, thinks that the clot of blood found in the femoral artery, contained sulphuric acid, which was not in the saline state."—Orfila, *Médecine Légale*, Empoisonnement par l'Acide Sulfurique, Obs. ii., p. 131, Fifth Edition, Second Part.

The post-mortem examination was made thirteen hours afterwards, on the requisition of the Procureur Impérial, who associated with me M. de Nazeille, Pharmacien of the second class of the Navy.

Although during these thirteen hours the mean temperature was about 84° F., Sinivassin's body *did not exhale any odour*, nor did it present *any sign of putrefaction*; the cadaveric rigidity was extreme, and continued to the end of the examination.

All the organs, except the digestive tube, were in the normal state.

The gums and the arch of the palate were pale, without any alteration of tissue; the epidermis of the tongue, reduced to a grayish pap, was removable by the slightest scraping, leaving the papillary structure of the organ bare; the epithelium of the velum palati was in the same state; the œsophagus presented a very remarkable *condition of corrugation*, its longitudinal folds were prominent, and appeared to be formed by the juxtaposition in parallel linear rows of little reddish papillæ, *extremely dry, and very rough to the touch*. As to its general coloration, this tube was much paler in its middle than in the upper and lower thirds, where the tint inclined to black, though without any charring; it appeared as if the middle third had been a much shorter time in contact with the caustic fluid than the two other portions. This supposition became certainty when, on touching different points of the œsophagus with a solution of caustic potash, we saw manifest itself on these points a bright reddish-brown colour, more intense in proportion to the distance from the middle part, where it was rather weak, although very sensible; the tongue afforded the same reaction, which everywhere subsequently resisted repeated washings.

Viewed externally, the stomach was seen distended with gas; towards its lesser curvature, and on its inferior aspect, was a very extensive ecchymosis; everywhere else its peritoneal coat was marbled with red, green, and black; separated from the body, and opened between two ligatures, it gave vent to the fetid gases which distended it, and to upwards of six ounces of a dirty putrid fluid, of a dark yellow colour, and in which floated a black detritus. Throughout the entire extent of the organ, with the exception of a space of three or four inches from the pylorus, the epithelium of the mucous membrane had been completely charred; a part of the carbonaceous matter had become detached, leaving exposed the dermis of the mucous membrane, and was floating, as I have said, in the dirty mass contained in the stomach; what remained *in situ* was as black as charcoal, and had a pulpy appearance. The points whence the epithelium was detached were as white as old ivory, throwing into relief the black colour of those where it was still adherent. At two or three inches from the pylorus the intact mucous membrane was of a dark colour, resembling the lees of wine.

The paleness of the duodenum contrasted in the most decided manner with the lesions of the stomach; it was perfectly healthy, and, as well as the jejunum and ileum, contained a yellowish pap;

solution of potash did not produce any modification of colour in the mucous membrane of the duodenum. It is evident that the hydrochloric acid had combined with the alkaline principles of the bile.

The four cavities of the heart, the large arteries of the thorax, and the abdominal aorta and its branches, were filled with a red hard coagulum, which was persistent, and was perfectly moulded to the cavities containing it.

We delivered to the examining magistrate, who was present at the operation, according to the usual legal form, the œsophagus, the stomach, the fluid from the stomach, and about a pint of urine voided during life.

Although in a case of poisoning with hydrochloric acid, chemical analysis is of only secondary interest, on account of the presence of the normal chlorides of the system, and of those contained in the liquids we use, the researches we undertook, on the requisition of the Procureur Impérial, will, perhaps, be not wholly uninteresting:—

*Urine voided during life.*—Notwithstanding the strong and repulsive odour of ammonia exhaled by this fluid, it reddened litmus paper, and was copiously precipitated by nitrate of silver.

Fifty grammes of the urine, into which a solution of nitrate of silver was poured until it ceased to be thrown down, yielded a precipitate which, when properly washed and dried, weighed 1·707 grammes, giving of normal chlorides the enormous proportion of 34·14 in 1000 parts of urine, or 8·95 of hydrochloric acid.

The stomach and œsophagus were macerated for sixteen hours in distilled water; the liquid furnished by this operation was not acid; it was abundantly precipitated by nitrate of silver. One-fourth of this fluid, one-fourth of the stomach, and an equal portion of the œsophagus, were placed in a porcelain capsule; when the watery part had been evaporated, the mass was introduced into a glass retort, placed in an oil-bath, and some sulphuric acid was added; the gases and vapours were received in a solution of nitrate of silver, and quickly yielded abundant precipitates; the operation was stopped when the matters contained in the retort had become perfectly dry.

These precipitates, well washed, were treated during twenty minutes with boiling nitric acid; the residue, carefully washed and dried, weighed 70·912 grains; its physical and chemical properties proved it to be chloride of silver.

The gastric fluid was not acid; it had a repulsive odour; it was abundantly precipitated by nitrate of silver. The albumen was coagulated by heat, and separated by filtration.

One ounce and five drachms were distilled in a glass retort without the addition of sulphuric acid, yielding a product which was not precipitated by nitrate of silver.—*Annales de Hygiène Publique et de Médecine Légale*, January, 1858. P. 209.