ON

ENCYSTED DROPSY

OF THE

THYROID GLAND,

(*Commonly called Bronchocele, or Neck Wen,*)

WITH A METHOD OF

OPERATION AND CURE;

AND CASES TREATED SUCCESSFULLY AT THE LEDBURY DISPENSARY.

By CONGREVE SELWYN, *M.D., Cheltenham, late Surgeon to the Ledbury Dispensary.*

A FEW years ago I published, in the "London Medical and Physical Journal," a brief communication relative to a particular species of bronchocele, and a method of cure applicable to it, almost, if not entirely, unknown and unpractised in this country. My observations appear to have been overlooked by the editors of the recent "Cyclopœdias of Medicine," and by no means to have had their full weight upon the minds of practitioners in general. On these accounts, and on account of the mode of practice which I have pointed out being indispensable to accomplish a cure in the specific cases, I have thought proper to resume the subject in a more detailed though concise form.

Two Species of Bronchocele.—Let it be understood clearly, in the first place, that I consider that there are two distinct and definable species of bronchocele:—

The first, the CELLULAR, consisting of an enlargement of the gland and its tissues, from increased secretion of fluid into the cells of which it is composed,—this species being most commonly met with, and supposed, in almost all cases, to constitute the disease.

The second, consisting not in many, but in a SINGLE CYST, in which, without any other change of structure in the gland, the fluid is collected in a sac.

Morbid Structure of the Cellular Species.—To define more fully and precisely both these species:—Mr. Thomas Prosser, who wrote in 1772 his "Account and Method of Cure of the Bronchocele, or Derby Neck," calls it an enlargement of the whole thyroid gland, in a pendulous form, like "the flap or dewlap of a turkey-cock's neck, when he is angry."—"It is soft, or rather flabby to the touch, and somewhat moveable; but when it has continued some years after the time of the growing, it gets more firm and confined." Prosser relates the post-mortem examination of a young lady, who took his remedies, the sponge and certain pills, under the advice of Sir George Baker, Dr. Hunter, and himself. Dr. Hunter, who conducted the examination in the presence of Mr. Cruikshanks and the author, ascertained the following fact:—"By examining the diseased gland with a glass, he perceived it to be enlarged, by a number of *cysts*, or bags of a *watery humour*, and, by puncturing the gland, water ran out; here we acquire, indeed, valuable information of the nature of this singular disorder." That this is, in fact, the morbid condition of the gland in the ordinary species of bronchocele, appears from the farther reports of John Hunter, Mr. B. Bell, and Dr. Baillie. These illustrious individuals saw that the morbid structure was an enlargement of the cells, containing a fluid more or less viscid; and Dr. Baillie thence concluded that the swelling depended upon a vitiated and increased secretion of the gland. Nor is the morbid inconsistent with the natural structure; for, according to Professor Macartney, of Dublin, and I suppose other anatomists, the gland is "cellular, and filled with a gelatinous fluid," in the healthy state. Of course, like all cellular structures, it is liable to increased secretion and hypertrophy.

Structure of the Simple Encysted.—So far for the compound encysted form; now of the simple encysted. From the preceding description, and the descriptions of almost all other writers on the subject, the disease seems to have been considered of the first kind only, that is, simple enlargement of the cells composing the gland, which is, by no means, the fact. During several years residence at Ledbury, where, as surgeon to the Dispensary, I admitted two thousand public patients annually, and conducted also an extensive private practice, I had opportunities of seeing very many cases of this disease. My attention was drawn particularly to an *encysted* species, in which, without any other change of structure in the gland, fluid is collected in a sac. In these cases, as it appears to me, the gland, or a portion of it, is converted into a cyst, which varies in magnitude according, of course, to the quantity of its contents. It is enlarged sometimes at one side only, sometimes throughout its whole substance. The bulk, as in Alice Treherne's case, may be so great as to compress the trachea, and impede respiration, almost to suffocation. (*See plate.*) In the case of an aged woman at Marcle, near Ledbury, the tumour was of the size of a child's head, and hung down to her thorax. It was my wish to have punctured it, but her consent was refused.

This Species not detected.—When that highly eminent surgeon, the late Mr. Thos. Blizard, was living in retirement near Ledbury, I requested his notice of one of the cases. He admitted that such cases must have come before him in his practice at the London Hospital, but escaped his discrimination.

Upon some conversation with Sir Astley Cooper upon this subject, he favoured me

with the following case, the original notes of which are in the possession of Sir James South, of Kensington:—

"A girl, 19 years of age, was admitted into Guy's Hospital, with an encysted tumour in the neck, from which ℥xxiiiss. of serum were discharged. The cyst was injected with sulphate of zinc, ʒj., to 0j. of water; adhesive inflammation was brought on, and she was perfectly cured. In another case, in which the tumour extended under the clavicle, it was cured by a tent of lint introduced daily." Sir A. C. remarked to me, respecting this second case, that suppurative action was set up; the child was two years of age, and the symptoms of constitutional irritation ran so high that he thought the child would have sank.—(*Communication made Nov.* 3, 1835.)

When Sir Astley Cooper, of whose school I was a pupil, came down a few years since to Ledbury, to a consultation upon the case of a patient, an opportunity was afforded to me of mentioning the subject to that illustrious surgeon also, and his reply was, that he "had a slight recollection of some similar cases."

Contiguous Cysts remarked.—Certainly some writers speak of cysts, but as constituting a disease juxtaponent, but distinct from the thyroid gland itself. Baron Alibert has noticed the existence of a voluminous cyst formed *around* the compound bronchocele, filled with a pultaceous or purulent matter; and Postiglione has observed a swelling which is sometimes encysted, and filled with matter of various degrees of consistence, resembling honey, and, in some instances, with air, constituting *emphysematous bronchocele*. To quote the most recent authorities, Dr. Copland† observes:—"The gland may be either healthy, or but little enlarged; the tumour consisting chiefly of thickened *surrounding* cellular tissue, sometimes *containing cysts*, filled either with a serous, albuminous, or purulent matter. Large encysted tumours may also form in the course of the trachea. But these may be readily distinguished by their situation, form, and fluctuation,"—a facility attaching, by no means, to the species of which I am speaking. "In addition to these spurious or complicated cases of bronchocele," says Dr. Andrew Crawford,‡ "there are other instances in which the *gland itself* is healthy, and the tumour consists of condensed cellular membrane, sometimes interspersed with cysts." So far, though vaguely, the encysted character has been alluded to in relation to cases different, I presume, from my own. The hæmatoma, or blood-cyst, of the thyroid gland, a membranous sac, supplied on its surface with blood-vessels, from which blood or a bloody fluid, so much coagulated, from containing a proportion of fibrine, as to "resemble the spleen, or a mass of clotted blood," is incessantly oozing, or distilling by exhalation, has been described by Monteggio, and is found usually in the *substance* of the thyroid gland, the filamentous tissue of the arm and neck, and at the knee. Mr. Hunter says, "Hydatids are not uncommon in the necks of women. They are often seated in the thyroid gland. They are sometimes of the first kind, at others of the second, containing glutinous or other kind of matter, hair, &c. †

"I have thought the disorder," observes Prosser, "a kind of *dropsy* of the gland; * * * * I have long ago mentioned to Dr. Hunter, and other medical gentlemen, that I thought this disorder and the dropsy of the ovarium similar diseases, excepting only their different situations: but I learn from Dr. Hunter that the dropsy of the ovarium, in common, does not take place till the decline of life. Sir George Baker is of the same opinion; but yet it is not peculiar to old age; and then our argument for considering the bronchocele and dropsy of the ovarium as kindred diseases, stands thus:—both diseases are peculiar to women; they frequently happen about the same time of life; both diseases, in their increase, observe the same slow progress; both diseases are of the dropsy kind, and both alike encysted. Whether the same remedies that prove so certainly efficacious in the *one* will affect the *other*, I can say nothing from experience; the *dropsy* of the ovarium, from its situation, is, for a time, hid from observation; and, as perhaps, for a time also, it does not affect the health of the patient, no symptom of its existence appears until it is far advanced. This circumstance, however, does not preclude the effect of medicines. Sir George Baker, to whom also I mentioned this matter (thinking the subject highly meriting, and wishing to have, the opinion of abler hands), does not think the disease of the thyroid gland originally water."

If there be anything in these constrained analogies, they must apply with more probability to the encysted than to the cellular species; ovarian dropsy and dropsy of the thyroid certainly meet at this point, that both resist medical, and are curable only by operative, proceedings.

As other tumours occur about the neck, to know whether it be or be not the thyroid gland which is the seat, the patient should be directed to swallow his saliva, and if the gland ascend in that act, it leaves no doubt that that organ is the structure affected.

The Encysted not Easy to Distinguish.—It needs nice discrimination to ascertain the

† Dictionary of Practical Medicine.
‡ Cyclopædia of Medicine.

† From MS. notes of Mr. Hunter's Lectures, communicated by a friend. See also "Good's Study of Medicine," vol. v., p. 316 to p. 322, for miscellaneous information.

existence of fluid in a sac, and so distinguish the *encysted* from the *cellular* wen. Upon this point I can submit no rules, all must be left to the *tactus eruditus* of the surgeon. When I have been myself in doubt I have made a small exploratory puncture, with a fine trocar, or with Mr. Hey's needle. It is proof enough of the obscurity and difficulty of these cases, that they existed undiscovered by surgeons of Mr. Thomas Blizard's character and eminence.

When Removal is desirable.—The removal of these tumours is important to those affected with them, who are chiefly females, not only on account of the unsightliness and disfigurement produced in a conspicuous and often ornamental part of the person, but because of the many morbid actions which are either connected with, or excited by, them.

Bronchocele connected with, or the Cause of other Diseases.—Dr. Parry saw five cases of bronchocele coincident with what appeared to be enlargement or palpitation of the heart. "Enlargements of the thyroid gland," observes this distinguished pathologist, "are not uncommon in females about the period when the body is fully formed, and the menses are in a sort of wavering state. After both these points are completely established they generally disappear, if the health is otherwise good. * * It is, indeed, true that these swellings occur most often, and in the greatest degree, in young females who have led sedentary lives, and who are of what are called relaxed and nervous habits, in which, according to the principles which I have already endeavoured to establish, there is a propensity to morbid determinations of blood, more especially to the head. Much the worst cases of the kind which I have seen at that age, have been so accompanied; and, in more than one of these, the affection of the head has amounted almost to madness. As the determination to the head in these cases has been removed, either by evacuants, by bodily exercise, or by the spontaneous salutary changes in the constitution, the bronchocele has also ceased.† I do not deny that, in some examples of this kind, the patient has remained subject to the determination to the head, even after the bronchocele has disappeared; nor is there any reason why this should not happen, unless the bronchocele were the cause of the determination, which is not presumed. On the other hand, cases of bronchocele have been observed to occur in the Nalais, as above remarked, and also in England, without any conspicuous symptoms of too great determination to the head. Still, however, the coincidence is so frequent and remarkable that one can scarcely avoid suspecting that the thyroid gland, of which no use whatever has hitherto been hinted at by physiologists, is intended, in part, to serve as a diverticulum, in order to avert from the brain a part of the blood, which, urged with too great force by various causes, might disorder or destroy the functions of that important organ. This notion, however, I offer merely as a conjecture, which future observation may either establish or annul."† There are few medical men, who have seen much of female cases, that have not observed, more or less, the circumstances which Dr. Parry has described. The incident of the throat becoming large at one time, and then diminishing to its natural proportions at another, in connection with irregularities of the circulation, is not uncommon to young women in ill-health, who seem to have a tendency of the thyroid to fulness.

Another physician has remarked, with considerable support from experience, that bronchoceles are seldom unconnected with some kind of irregularity of the menstrual discharge, or disorder of the uterine functions, which exists during the continuance of the bronchocele, and they are said to interrupt pregnancy (*Dr. Copland*).

If bronchocele is in very many persons a mere local disease, without any ostensible consequences, so is it often an exciting cause of much constitutional disorder. It has produced palpitations and irregular and intermittent affections of the lungs by disordering the respiration sometimes to a fatal extent (*Flojani*); in cases of great enlargement, it impedes respiration, deglutition, and the return of blood from the head by its pressure, thus occasioning hoarseness, wheezing, flushings of the face, headach, giddiness, and, in some instances, even death (*Dr. Andrew Crawford*). Sometimes it produces merely a slight difficulty of swallowing; in other instances it augments in size, and becomes dangerous from its pressure on the neighbouring parts; or it inflames, forms a large abscess and bursts. Enlargement of the left lobe is more dangerous than that of the right (*Professor Burns*); it generally occasions, by the situation and nature of the complaint, a difficulty of breathing, and very much so on a patient taking cold, or attempting to run or walk fast; in some the tumour is so large, and so much affects their breathing, as to occasion a loud wheezing; but we meet with many exceptions to this general rule. Some shall have the disease in an aggravated degree, and suffer but little by it; in others, though the enlargement of the gland is not near so considerable, yet they suffer much more from it;—the opulent who have the complaint in a considerable

† Prosser has noticed its connection with the menstrual period, and occasional disappearance, when small. "If the tumour of the neck is but inconsiderable at the breaking out of the menses, it sometimes, by degrees, goes quite off, and often this change in the constitution does not seem to affect the tumour of the neck, but it continues to grow as before."

† Parry's Posthumous Medical Writings, Vol. II., p. 127.

degree, will be rendered incapable of enjoying life,—the poor of getting their living (*Prosser*). Mr. Coxe saw the disease in the Goitron districts; it gives rise, he says, to stiffness of the neck, a slight degree of continued pain, and frequently a depression spirits. The sufferings of the patient are increased by a cold, and almost every other infirmity. Women are more frequently and more severely affected by this disease than men, feeble than vigorous persons, and children than adults. When the patient continues in the same place, and in the same habits of living, by which it was produced, it generally increases; but if he removes to a part of the country where it is unknown, it not uncommonly decreases, and sometimes disappears. He investigated bronchocele throughout Europe, and found it only in those countries where the soil is calcareous, and where tuff or tufa is dissolved in water in a state of extremely minute division. His theory, founded on this fact, is that the tufa, in this minute state, is deposited in the gland, and excites, by irritation, the secretion of the viscid fluid natural to the gland, by which the gland is unnaturally distended and enlarged. Tufa has been taken from these glands. The cure is to remove the patient, and not to use the water, unless distilled or mixed with wine and vinegar, which is found a preservative. † Professor Dwight, in his "History of New England," says that Mr. Coxe's remarks are confirmed by the origin and history of the disease in the United States.‡ Dr. Sacchi also considers calcareous water a cause of bronchocele, which, he says, is often cured by change of air, and sometimes undergoes partial softening (*ramollisement*). For my part I have noticed, as I before hinted, the concurrence of bronchocele with uterine irregularity, and affections of the respiration and circulation, and seen, indeed, all the symptoms produced by the local and mechanical pressure of these tumours.

Not a Disparagement of the Person in some Countries.—Though the disfigurement is not one of the least objections to it in this country, it seems, on the other hand, to be esteemed an ornament in some other countries. "It is a question in France whether it is not an imperfection to be without this disease, and in Tyrol they allege it passes for an ornament. In places where it is common to everybody, the men and women dispute about beauty according to the regularity and advantageous disposition of the swellings which they carry. The Tyrolese, indeed, treat with the opprobrious appellation of *crane-neck* those of their neighbours, and even strangers, who have not this kind of swelling. An Englishman travelling in this country, attracted the notice of everybody by his figure, but he seemed to want one great requisite of beauty,—'What a handsome man!' said they, 'if he had but a fulness of the neck!'" †

Cellular curable, and Encysted incurable, by Medicine.—Tapping and Seton effectual in the Encysted.—As I before observed, whatever may have been the power of remedies over the *cellular* bronchocele, which Prosser calls the natural and *curable* bronchocele, they have exerted no influence, in my practice, over the *encysted* species. After the discovery of that species I adopted a method of treatment, by tapping and seton, which, so far as I can learn, has been unpractised in this country in *that form* of the disease. I am happy to acknowledge that I was indebted, in the first place, for the suggestion to Mr. Thomas Blizard. Prosser seems to have caught a glimpse of the principle by analogy. "Mr. Pott, indeed," he says, "cures another kind of dropsy, the hydrocele, *with a seton*, a kind of *tapping* of the disorder." I was not aware of Flojani's practice, when I first published two cases in 1828, nor, indeed, till I was writing this essay, though it is mentioned in Mr. Samuel Cooper's valuable "Surgical Dictionary." Flojani makes an opening with a trocar, but observes that this plan is liable to be followed by relapse, when the cyst is very thick and hard, in which case he has found it necessary to have recourse either to an incision or seton for the purpose of exciting suppuration. He considers the seton as the least dangerous of all methods of radical cure; but if the disease be composed of one cyst of moderate size, he recommends its entire removal. The seton is mentioned also in a French Medical Cyclopædia of 1790, "as being eligible, where the disease is conjoined with a cyst." The method by seton, in the case of cellular or compound bronchocele, a quite different operation, and very precarious, has been known and occasionally practised ever since the middle of the last century by many eminent British practitioners, and Callowsi, Gerard, Richter, Foderé, Alibert, and Quadri, of Naples, on the Continent.

Injection not Successful.—Before I adopted the seton in encysted bronchocele, I tried the method by injection upon the analogy to hydrocele; but instead of there being, as in the scrotum, two coverings of the cavity, a close and reflected—(tunica vaginalis testis et reflexa)—which come in contact with each other, the sac of an encysted wen has only one common surface, which expels the fluid as soon as it is thrown in, and, not touching at all points, receives a too slight and fleeting impression from the injection to be stimulated to adhesive inflammation.

I have opened with caustic and injected the sac, but failed in every case but one by

† Coxe's Letter from Switzerland, XXV.
‡ Vol. VI., p. 107.

† Girard, Traité des Loupes, p. 409.

injections: that single instance being the bronchocele of Mrs. Cormac, the wife of a joiner at Worcester, who had been treated with the usual remedies by the late Mr. Carden, of Worcester.

Since these cases occurred it appears that Mr. Martin and Dr. Henry Goodeve have succeeded,—the former in scrotal hydrocele, the latter in encysted tumour of the side of the neck—with iodine injections, consisting of three grains of solid iodine and one drachm of hydriodate of potash, to six ounces of water.—(See LANCET, Vol. I., 1838-9, p. 55.)

Mode of Operating.—I proceed to the operation in this manner:—An assistant grasps the tumour on both sides, pushes it forwards, and renders it as tense as possible; I then introduce, at one side of the tumour, a fine and small trocar, about two inches in length by one-eighth of an inch in circumference, with a canula to draw off the fluid. In the first instance I used a probe, with a trocar point, to introduce the silk, but I have employed, latterly, a common stocking-needle, armed with one or two threads, and carried it through the canula and out at the opposite side. The period required for the cure is various, according to the bulk of the wen, the state of constitution, disposition to healing, and other obvious circumstances. I have never failed, as yet, by this plan of treatment in a single case.

The value and efficiency of a novel plan is impressed most forcibly on the mind by a series of cases, but the urgencies of a fatiguing practice, in which I journeyed day and night for several years, frequently at the average rate of forty miles in the four-and-twenty hours, left me no time to fill up the blank pages of a case-book. Some examples, however, I have preserved.

CASE 1.—Alice Treherne, a girl about 18 years of age, who lived in the parish of Bosbury, Herefordshire, came to me with encysted dropsy of the thyroid gland. The tumour was so large that it compressed the trachea and impeded respiration, sometimes almost to suffocation, particularly when she was lying in bed, or had caught cold. (*See Plate.*) Her constitution was sound, and her general health not impaired in other respects. In the first instance I opened the sac three or four times with the trocar and canula, and let off from x. to xii. ℥ of fluid; I then employed the mineral caustic (*potassa fusa*) to effect an opening, upon the same principle as in hydrocele; I made several applications, and removed the slough produced by each preceding application with the dissecting forceps, before I could penetrate the sac; a common poultice was applied, and the suppurative process allowed to go on in the sac, but I was obliged to dilate the orifice before the sac began to granulate and heal; the mercurial and iodine ointment was applied, after the discontinuance of the poultice, to remove the remaining thickening, and a permanent cure was effected, without leaving any other blemish than an inconsiderable scar.

CASE 2.—Thomas Stevens, a boy, æt. 14, farm servant of Mr. Cummins, of Dymock, Gloucestershire, had an enlargement of the right side of the thyroid gland, which interfered very much with respiration, particularly during exertion. On examination, that side of the gland was found converted into a thick cyst. I took the opinion of Mr. T. Blizard upon this case. The small trocar and canula were introduced, and six ounces of fluid, by measure, evacuated. The lad was desired to attend again in a week; but the sac, as we had anticipated, had filled again in four days, and become of nearly the same magnitude as in the first instance; it was repunctured, and a seton passed across it, and allowed to remain, with the intention of effecting suppuration and obliteration; but the suppuration, which was very copious, by its confinement in the sac, was productive of constitutional irritation; I then withdrew the seton, and afterwards laid open the cavity with a bistoury and director, to the extent of one inch and a half; and, on passing my finger into the wound, I found the cyst remarkably thick and partly ossified. I removed the seton before I made the opening, with the expectation that the irritable action would subside, but it continued, and dilatation became necessary; the sac, after this step, was soon obliterated, and the lad has continued perfectly well ever since.

CASE 3.—Wm. Bubb, æt. 18, from Holles Greeves, near Preston, Gloucestershire, entered the Ledbury Dispensary as a patient in 1824-5 for relief of bronchocele; he was also affected with irritation of the bronchial membrane and cough, and anasarca, with a tendency to general dropsy, for which disorders he had been an in-patient of the Gloucester Infirmary. Mr. Blizard examined the swelling, and was of opinion that it contained fluid, and directed the whole treatment pursued throughout. I introduced the trocar and canula used in hydrocele, and half a pint of clear watery fluid escaped from the sac. In about a month or six weeks the fluid accumulated again, and I evacuated the same quantity; to prevent any return of the disease I introduced a seton of six threads of silk with an eye-probe into the aperture of the canula, and passed the probe in the canula to the opposite side, which I cut open with a lancet; the probe was withdrawn and the seton left behind, by which inflammation and suppuration were excited in a few days; he wore the seton for several months without any occurrence of constitutional irritation. The pulmonary complaint and anasarca were treated with *pil. scillæ. c. hydrarg.*, and he recovered from both the local and general disease under the above unfavourable circumstances.

I may repeat that I have so treated at least a dozen cases with invariable success, and in some of those cases had to contend with complications from which the constitution was seriously suffering.

Above Method of Treatment not known.—Of my own knowledge it is matter of fact that great numbers of bronchocelous patients are discharged by medical men uncured from hospitals, infirmaries, dispensaries, and from private care, through ignorance of this method of treatment. (When Mr. Blizard was visiting in Derbyshire, were wen is indigenous, and has given a name to the disease, he stopped for a while at an hotel, and there observed a servant with one of these swellings, which he examined, and found distended with fluid. In an interview with her medical man he mentioned the cases which had occurred at the Ledbury Dispensary; the surgeon informed him that he thought there were a hundred such cases in the neighbourhood. Mr. B., before he left the county, put him in possession of the mode of cure.)

With this impression I shall feel gratified should I succeed in directing attention to a permanent method of curing a great deformity, which is not unfrequently a source ef disordered health to a serious degree.

ANEURYSM OF THE INNOMINATA,

SUCCESSFULLY TREATED BY

LIGATURE OF THE CAROTID AND SUBCLAVIAN ARTERIES.

By S. W. FEARN, *Esq., Surgeon, Derby.*

I REQUEST the favour of a space in your excellent Periodical to announce the death of my patient, Mary Scattergood, upon whom I have twice operated for aneurysm of the arteria innominata, once by placing a ligature on the right common carotid artery, and, on a second occasion, after an interval of two years, by tying the right subclavian artery. The particulars of the case are given at length in the Numbers of THE LANCET for October 15th, 1836, and August 25th, 1838.

I received a letter last week from Mr. Clark, an intelligent practitioner residing at Fazeley, where the woman latterly had been living, informing me that she had died, after a ten days' illness, of pleuritis, and I have since been there and examined the body. I learnt from Mr. Clark, that the Sunday but one previously she had got very drunk, and, from falling out of bed three times, she had severely injured her side; she afterwards complained of pain below the right breast, and her medical attendant, considering that the pleura was inflamed, applied leeches and a blister, and administered such other remedies as he deemed proper. She appears, however, gradually to have become worse, and she expired on the evening of Wednesday, Nov. 27th.

The *necropsy* disclosed the following appearances:—The whole surface of the body was of an intense yellow-colour, indicating at once the existence of jaundice; there was much subcutaneous fat. On opening the chest, the lungs did not collapse; this was owing, chiefly, to recent pleuritic adhesions on the right side, and to adhesions of longer standing on the left; the left lung was crepitant and healthy; the pleural membrane covering the middle lobe, and the lower and posterior surfaces of the upper lobe of the right lung, was larded over with recent lymph, and the membrane was also red and vascular; the corresponding portions of lung were solid, exuding a bloody fluid of a muco-purulent character, and presented an example of the red hepatisation. The lining membrane of the windpipe and larger bronchial tubes was healthy in appearance; there was no water in the pericardium or pleural cavities. The heart was very unusually fat for the age of the patient (30 years); its valves, both auriculo-ventricular and semilunar, were healthy; the inner surface of the whole of the arch of the aorta was studded with small cartilaginous and ossific patches. The innominata alone