CLINICAL LECTURES ON THE VARIETIES OF PHTHISIS.

Delivered at the Hospital for Consumption, Brompton.

By C. THEODORE WILLIAMS, M.A., M.D., F.R.C.P.,
Physician to the Hospital.

LECTURE I.—PATHOLOGY AND CLASSIFICATION (*concluded*).

AND now to classify phthisis, which I propose to do partly pathologically and partly clinically, as follows.

1. Acute varieties.....	(1) Scrofulous pneumonia, or acute phthisis.
"	(2) Acute tuberculo-pneumonic phthisis.
"	(3) Acute tuberculosis.
2. Chronic	(4) Catarrhal phthisis } of inflammatory origin.
"	(5) Fibroid phthisis }
"	(6) Scrofulous phthisis.
"	(7) Hæmorrhagic phthisis.
"	(8) Laryngeal phthisis.
"	(9) Chronic tubercular phthisis.

Let us first take the acute varieties, and it will be well to remember that Dr. Pollock has pointed out two principal features about them:—1. Their hereditary character; for, out of one hundred and seventy-six patients, only thirty-four could state positively that there was no family taint; 2. The absence of hæmoptysis, which may account for their rapid progress, as the result of a free hæmorrhage is temporary relief to the lung, provided the blood, in passing into the alveoli, does not induce catarrhal pneumonia.

We will now proceed to consider the first variety—*acute phthisis, scrofulous pneumonia, or galloping consumption*, as it is termed. Acute phthisis or scrofulous pneumonia is characterised by a well known group of pyrexial and *consuming* symptoms, graphically described by Dr. C. J. B. Williams and others. The patient—generally a young man—may or may not have had cough or hæmoptysis previously. He is then attacked with what appears to be pneumonia of one or both lungs. The pulse becomes rapid, from 120 to 140, hard at first; the temperature rises to 100 deg., 101 deg., 103 deg., and 104 deg. Fahr., and even higher; the skin is pungent and burning to the touch, and especially to the ear of the auscultator; but, nevertheless, there are chills and sweats at night. The tongue becomes red and beefy in appearance. There is marked anorexia, with nausea, vomiting, diarrhoea, and thirst. The wasting is rapid and progressive; the cough is continuous and distressing; the expectoration abundant, opaque, shreddy, and purulent, and, on microscopic examination, is found to contain lung-tissue in large quantities. The flesh wastes and the strength ebbs away. On examination of the chest, we sometimes find nothing at first; then appears crepitation under one or both clavicles, followed by dullness, which soon extends over the whole of one or both sides, varied occasionally with spots of cracked-pot sound.

Auscultation reveals coarse crepitation, with gurgling in parts. Bronchophony is general at first, but gives way to islets of pectoriloquy, or to cavernous whispering sounds, and the physical evidence is soon complete that the lung is quite disorganised. In many cases, the wasting continues, though the temperature may fall and the appetite improve; and, in these patients, the duration of the disease is a short one, often not exceeding a few weeks. Where, on the other hand, the appetite improves, it not uncommonly happens that, after the destructive lung-processes have abated, leaving those organs mere wrecks, the temperature falls, and even assumes the collapse type; the pulse also falls and becomes weak, though it rarely assumes the normal standard. In this weak state, with the greater part of his lungs excavated or infiltrated with caseous and tuberculous masses, and his body worn to a skeleton, the patient may even fatten and gain strength, if the appetite be good. The temperature may fall to the normal in the morning, though there is generally an indication of an afternoon rise; the pulse generally remains quick, and the respiration somewhat hurried. In this precarious condition, cases of acute phthisis sometimes last on for a considerable time, though as mere shadows of their former selves, and liable at any time to be carried off by the various accidents, as they are termed, of the disease; viz., hæmoptysis, diarrhoea, or pneumothorax. Generally, however, the duration is a short one, and the patient sinks, worn out by the cough and febrile process.

On *post mortem* examination, we find the lungs to be the principal seat of the morbid changes, and these are for the most part of an in-

flammatory nature. Whole lobes are infiltrated with caseous pneumonia having a greyish white appearance, some portions caseating and others undergoing excavation, and thus are formed those large thin-walled cavities which often end in pneumothorax.

Sometimes the greater part of one or both lungs is in a state of croupous pneumonia, with caseating centres scattered throughout, showing a strong tendency to coalesce and to reach the pleural surface, where they are often to be detected before breaking down has taken place. Often miliary tubercle is entirely absent, as also fibrosis; though the former, if the case be prolonged at all, is pretty sure to appear through secondary infective processes. In the most rapid cases, the pleura is non-adherent, and hence the tendency to pneumothorax.

Let us now take a typical case of scrofulous pneumonia.

Mary Ann M., aged 23, single, a servant, born in Gloucestershire, was admitted into the Brompton Hospital on June 29th, 1871. Her sister had died of phthisis. She had enjoyed tolerable health till six months before admission, when cough came, accompanied for the last three months by muco-purulent expectoration, slight loss of flesh and appetite, and by night-sweats. Lately, she had had pain in the left side and some dyspnoea on exertion; no hæmoptysis. Appetite bad; tongue very red, slightly furred in the centre. Catamenia absent for six months; bowels regular; pulse 133, weak; respirations, 31, weak. Temperature (morning) 100.4 deg. Fahr. Physical signs *nil*.

At the end of a week, I examined her chest with Dr. Tatham, and we discovered nothing. The temperature was taken twice a day, and varied between 100 deg. Fahr. and 103 deg. Fahr.; the pulse was 140, the tongue remained red, and the patient wasted visibly. Cough very troublesome.

July 13th. Patient still very feverish. Crepitation audible under the right clavicle.

August 1st. Cough very troublesome; expectoration scanty; temperature 103 deg. Fahr.; pulse 132; respirations 48. Crepitation heard now under both clavicles and at the base of the left lung. Tongue beefy.

August 21st. In the last fourteen days, the temperature had fallen somewhat, and had ranged from 100 deg. to 102 deg. Fahr. Pulse from 116 to 128; respirations from 36 to 48. Considerable emaciation; gurgle, and cracked-pot sound was detected under the left clavicle. Crepitation was audible under the right.

A week later, cavernous sounds were detected under the right clavicle, and scattered crepitation over the lower portions of that lung. By degrees, the cavity on the left side appeared to enlarge, the patient assumed all the appearance of advanced disease: night-sweats became profuse and wasting well marked. Nourishment, in the form of beef-tea, egg-flip, and milk, was taken regularly, and there was entire absence of diarrhoea.

On October 1st, she complained of sharp pain under the left mamma, which was relieved by no local applications, and, on examination, signs of pneumothorax were detected. The tongue became aphthous; she showed inability to take food, and she gradually sank and died on the 11th, having survived the supervention of the pneumothorax ten days.

Mr. Rose, at present assistant-surgeon to King's College Hospital, was my clinical assistant at the time, and kept a regular and careful record of the pulse, respiration, and temperature for two months; and the result was, that the pulse varied from 104 to 140, the average being 120,* the respirations from 32 to 48, the temperature (taken always twice daily, and sometimes oftener) from 99 deg. to 103.4 deg. Fahr., the former point being only recorded once, when death was at hand; as a rule, the range was between 100 deg. and 103 deg. Fahr., the evening being slightly higher than the morning.

The treatment was chiefly directed to subdue the fever and support the patient. For the first purpose, various drugs were tried; viz., salines, quinine, digitalis, and sulphurous acid; but, though narrowly watched, no depression of temperature was detected under their administration. The patient's appetite continued good till aphtha set in, and large quantities of nourishment were taken with apparently no effect on the emaciation.

The necropsy was made by Mr. Rose forty-six hours after death. The body was greatly emaciated; rigor mortis was slight. The left pleura was adherent at the upper third; the lower two-thirds contained about a pint of offensive purulent fluid. The left lung communicated with the pleural cavity by two openings on its anterior surface, one an inch in diameter and very ragged, and the other somewhat smaller. The pleura also contained several loose bands of adhesion. The lung itself was in a state of caseous pneumonia, riddled

* This case was admitted before I adopted the system of taking the temperature five or six times a day, as stated in my paper in the *Medico-Chirurgical Transactions*, vol. lviii.

in parts with cavities, the upper lobe containing one extending throughout its whole length, and communicating by the above-named openings with the pleura. The right lung was adherent at the apex. The upper lobe was full of caseous pneumonia, and contained a small cavity at the top. Caseous masses were found in the middle lobe, along its upper border, extending seemingly from certain centres. The lower lobe was much congested, and contained a few miliary tubercles. The heart weighed seven ounces and was fatty, but the valves were healthy. The liver was enlarged, of nutmeggy consistence, and weighed three pounds. The spleen was amyloid. The kidneys and other organs were healthy.

This was a fair instance of scrofulous pneumonia, and exemplified the striking features of this variety of consumption, which may be summed up as follows.

1. The intensity of the pyrexia and rapid emaciation.
2. The acuteness of the disorganising processes, excavation quickly succeeding consolidation.
3. The inflammatory nature of the processes, and the rarity of miliary tubercle.
4. The absence of fibrosis.
5. The occurrence of pneumothorax, owing to two causes:—1. The size of the cavities formed; 2. The absence of pleural adhesions.
6. The tendency of the disease to localise itself in the lungs, and the freedom of other organs, such as the intestines and the serous membranes, from secondary products.

ON DRAINAGE IN OVARIOTOMY.*

By GEORGE GRANVILLE BANTOCK, M.D., F.R.C.S.ED.,
Surgeon to the Samaritan Free Hospital for Women and Children.

WITH the exhaustive works of Spencer Wells and Peaslee in our hands, it might be thought that there remained nothing new to be said on the subject of ovariectomy. There is one point, however, to which attention may be profitably drawn, and on which you will look in vain for any information in these works. I refer to the subject of drainage of the peritoneal cavity as one of the steps of the operation.

It may be said that most of the early operations in which the ends of the ligature were left hanging from the wound were examples. This arose from the erroneous ideas then prevailing as to the behaviour of a portion of ligatured tissue. It was universally believed up to a late period, and it is even now a matter of extensive belief, that sloughing of the distal portion must ensue; and it is only within the last few years that it has been shown, both by direct experiment and by *post mortem* examination of persons who have been subjected to ovariectomy, that, if the ligature be cut off short and guarded against the putrefactive process, such a result is almost unknown.

In 1872-3, Dr. Marion Sims published a paper in the *New York Medical Journal*, in which he showed, from an analysis of a large number of *post mortem* examinations, that, in the great majority of cases, death was due to the absorption of septic matter from the peritoneal cavity. The conditions were found so similar, and the symptoms preceding death presented such uniformity, that no other conclusion was possible. He further showed that, as in Mr. Spencer Wells's hands, this usually fatal train of symptoms had been checked by the evacuation, through the vagina, of a quantity of highly irritating and often offensive fluid. Hence, he argued, that if we could only prevent this accumulation, we should obviate a considerable number of deaths. To this end, he ventured on the heroic proposition "to puncture the *cul-de-sac* of the vagina behind the cervix uteri, and to pass a tube of some sort into the peritoneal cavity to drain off any effusion that may take place in the said cavity", and "to do this in every instance, whether there are adhesions or not". In illustration, he quotes five cases in which this proposition was acted on, and of which three were successful. On perusing these cases, one cannot be favourably impressed with the results, which are far from justifying the universal adoption of this procedure.

At a recent meeting of the Royal Medical and Chirurgical Society of London, Mr. Spencer Wells gave an analysis of "three hundred additional cases of ovariectomy", in which he did little more than allude to the subject of drainage. Nowhere, as I have said, will you find any detailed information on this subject, and we are thrown back on a few isolated cases which are difficult to find.

It will be my duty, then, to speak, first, of the cases that would appear to demand the application of this principle, with illustrative ex-

amples; secondly, of the modes of effecting the object in view; and thirdly, to endeavour to indicate the most effective and least troublesome method.

First, as to the cases which appear to demand this proceeding:—I may at once say that the idea of draining the peritoneal cavity after a simple uncomplicated case, *i.e.*, without adhesions and with a good pedicle, is not to be entertained. Speaking generally, I would say that whenever, in the course of operation, it becomes evident or probable that oozing of blood or serum, or both, must go on after closure of the wound, and especially when there has been an escape of ovarian fluid into the peritoneal cavity, then drainage will be demanded. This general proposition will be best enforced by illustrative cases. It has probably occurred to those who are in the habit of seeing, or have seen, much of ovariectomy, to regret that means had not been used to avoid that which has been revealed by a *post mortem* examination. This, at least, is my experience; and I cannot but regret the omission in the first case which proved fatal in my hands. The operation was performed under very unfavourable conditions. I had tapped the patient a week before. I removed twenty-three pints. This was followed by inflammation of the cyst. On the morning of the operation, the patient's temperature was 101 deg. She died in four days of septicæmia. There was about a pint of very acrid serum with broken down blood in the peritoneal cavity. The clamp was used. In some cases, the pedicle has served as a drain, as in a similar case which I saw under Mr. Wells's care. Had I used the drainage-tube, it is probable the result would have been different.

CASE I.—J. S., aged 25, was admitted into the Samaritan Free Hospital in February 1876, under the care of Mr. Spencer Wells. A week afterwards, she was tapped. Inflammatory symptoms followed, but she recovered within three weeks, when she went to a convalescent home. She returned again on July 6th. The patient had lost much flesh; tumour very multilocular; adhesions evident; uterus drawn up almost out of the pelvis; altogether an unpromising case. Mr. Wells kindly offered me one of his cases, and I selected this as the most urgently demanding operation. I had arranged to operate at 9.30 A.M. on July 21st, 1876. On my arrival, a little before that time, I found that the patient had been seized some hours before with severe abdominal pain. She was then too tender for examination, but the tumour had lost some of its prominence; there was more fluctuation (superficial). Pulse 130; temperature, 100.4 deg. It was believed that rupture had taken place; yet I decided to proceed with the operation as a forlorn hope.

Operation.—On opening the peritoneum, a considerable quantity of ovarian fluid and thin colloid matter escaped. The tumour was first tapped and then broken up with the hand. As the mass was drawn out, the adherent mesentery was ligatured as it came into view, as well as one of the fimbriæ of the left Fallopian tube. Abundant, but not very firm, pelvic adhesions were then broken down, liberating the mass, which sprang from the right side by a pedicle about an inch long and two inches broad. The pedicle was transfixed and secured by a double ligature, of which the ends were cut off short. A long tail of omentum was found adhering to the pedicle close to the uterus. Two ligatures were applied, and division effected between. A portion of omentum adhering to the abdominal wall close to the incision was not interfered with. It required a great deal of sponging to clear away the serum and colloid matter from the pelvic cavity and from amongst the intestines, and considerable oozing of bloody serum went on. Under these circumstances, I deemed it advisable to put a glass tube through the bottom of the wound, reaching to the bottom of the utero-rectal cul-de-sac before closing the wound with seven sutures in the usual way.

An hour after the operation, the temperature was 100.8 deg., and the pulse 146. Eight hours afterwards, the temperature was 102 deg., and the iced water cap was applied. Bloody serum escaped, and was drawn off from the tube for four days—in all, about a pint; in the course of the fourth day, a piece of India-rubber tubing was substituted for the glass; and on the next day, the discharge having ceased, this was removed and the opening forthwith closed up. The patient left her room on the eleventh day, and the hospital on the twenty-fourth day.

CASE II.—M. H., aged 48, mother of four children, was admitted into St. Bartholomew's Hospital in August 1875, under the care of Dr. Greenhalgh. A few days afterwards, the tumour burst; the fluid was absorbed; and, at the end of three weeks, the patient left the hospital very much reduced in size. She re-entered the hospital in June 1876, and on the 26th Mr. Thomas Smith removed twenty-one pints of fluid by tapping. The case was considered too unfavourable for operation; and on August 14th she entered the Samaritan Hospital, where I tapped her for Mr. Wells, removing twenty-two pints, and leaving a larger mass than before. The hospital was about to be closed for the

* Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Manchester, August 1877.