FURTHER REMARKS ON THE NATURAL HISTORY OF PULMONARY CONSUMPTION.

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By A. B. SHEPHERD, M.A., M.D., F.R.C.P.,

Physician to the Victoria Park Hospital for Diseases of the Chest; Assistant Physician to St. Mary's Hospital; etc.

IN the lectures which I had the honour to give before the Royal College of Physicians, now more than a year ago, I attempted to take, as far as I could do so, a general view of the various diseases which, leading by different means to a larger or smaller interference with the respiratory function, produce clinically the same symptoms of pulmonary consumption, but show by no means precisely similar *post mortem* appearances. The task of giving those lectures came upon me unexpectedly, and I made use of such materials as I had at hand or could easily lay hold of. Since then, in preparing the lectures for publication, though I have not found anything to withdraw, I have found much to support the views there stated, and I would supplement them by filling in more fully than I could do at the time the outlines I sketched. But it is impossible to avoid the conclusions that all individual experience only adds further proof to knowledge already well grounded, and that any originality to which a dissertation of this kind may be supposed to lay claim is, except in the handling of facts already observed, utterly out of the question.

The points I would further touch upon here are these:—The markedly perivascular and peribronchial growth which accompanies, with few, if any, exceptions, the course of acute tuberculosis in the adult and the child; the catarrhal commencement of ordinary phthisis; and the condition of the lungs, to which more attention has been lately drawn, due, as I suggested in my Goulstonian lectures, to the poison of syphilis. I would also make a few remarks on one of the causes of hæmoptysis.

The drawings* to which I would first call attention are made from preparations taken from a child, Henry B., aged twelve months, who died about four months ago with the symptoms of tubercular meningitis, and presented *post mortem* the appearances found in general tuberculosis. If these drawings be compared with those made from the lungs of a woman who was admitted into one of the metropolitan hospitals for supposed delirium tremens, but died after a short period of illness from general tuberculosis, they will show a striking similarity. And if, again, they be compared with other drawings made from cases of ordinary pneumonia and ordinary phthisis, that similarity will appear more striking still. Whether you examine the lung of the child or the lung of the adult, you cannot but be astonished at the very small amount of intra-alveolar growth present in the shape of catarrhal or desquamated cells, while, at the same time, you find the alveoli themselves collapsed and the vessels running along their walls intensely congested. I am, of course, not referring to those much rarer cases, to the absolute certainty of accurately diagnosing which Niemeyer has already drawn attention, in which the naked-eye appearances, easily taken for those of acute tuberculosis, resolve themselves, under the microscope, into districts of acute catarrhal pneumonia. And, in addition to this absence of catarrhal products and this collapse, you observe in the adult as well as the child the same growth in the walls of the smaller vessels and bronchi, the same distension of their lymphatics by numerous lymphoid cells between which, more marked in some portions of the preparations than in others, run more or fewer fine fibres, forming to some extent a network, the stroma probably of Dr. Klein's endolymphangeal structures.† And to this fibrillation, more or less advanced in the development of these lymphatic growths, I would draw strict attention, because these fibres of the endolymphangeal stroma are not to be confounded with that production of fibrous tissue which, whether in chronic pneumonia, in ordinary phthisis, or in the various forms of so-called fibroid phthisis, has its place of origin not in the adenoid, but in the truly fibrous tissue of the alveolar septa.

This strong contrast—the presence, on the one side, of lymphoid growth with but few, if any, intra-alveolar products; on the other side, the presence almost exclusively of the latter—leads me to lay great stress, as I have already done elsewhere, on the pathological line which marks off general tuberculosis from ordinary phthisis—a demarcation distinctly warranted by the very different clinical symp-

toms of the two diseases, but by no means yet, even among observers of a very late date, sufficiently recognised.

I have spoken elsewhere of the connection of the clinical symptoms in general tuberculosis with their *post mortem* results. I pass on, therefore, to speak of the other of these strongly contrasted affections; and I would insist upon a full study of this drawing, in which the microscopic appearances found in a case of galloping consumption have been most faithfully drawn. The part of the preparation from which this drawing was taken occupies at least four times the field of a microscope magnifying 270 diameters, and has been obtained by moving the slide forwards or backwards under the objective, so as to include the whole portion of affected lung, from the ragged wall of a cavity to the outskirts of perfectly normal lung-tissue. There is no perivascular or peribronchial growth. Beyond the margin of the cavity, there are fibrous structures in which are scattered cells which may be leucocytes, possibly lymphoid cells or pus-cells, most probably the latter. There are the remains of blood-vessels, almost diagrammatically marking out the limits of former alveoli; over the whole middle portion is a confused mass of cells and nuclei; but beyond the edge of confusion are alveoli in which catarrhal cell-development is more or less advanced or only commencing; nothing of the interstitial growth which it is easy to see in the drawings of acute tuberculosis. And outside all are the empty normal alveoli. Three different zones may thus be recognised: most internally, at the top of the drawing (a), the slightly thickened, probably pus-secreting wall of the cavity; (b) next a district of softening, which extends backwards to (c) catarrhal mingling with unaffected lung-vesicles. In very truth, this drawing might serve as an illustration of the second case which Charcot gives in his treatise on *Chronic Pneumonia*;* that of an unmarried woman aged 21 who died twenty three days after admission into hospital, with the clinical signs and symptoms, and the *post mortem* results of numerous small cavities in the right apex. Of this case, he is compelled to allow (page 41) that it is one "où la maladie affecte les allures de la phthisie galloperante". I have no doubt that it was so, or that the changes in the lungs were primarily pneumonic.

And yet, in spite of such contrasts as these drawings show, it is possible to read, side by side, the conflicting opinions of three writers observing apparently similar cases in the same hospital. Dr. Williams† and his son speak of "acute tuberculosis" as being the "worst and most surely and rapidly fatal form of consumption"; while Dr. Powell,‡ in a footnote to the table at the end of his book, holds that "acute tuberculosis cannot be regarded as a variety of phthisis, though it frequently supervenes as a fatal complication of the disease". It is scarcely necessary to say that I entirely agree with the conclusion of Dr. Powell.

I commenced purposely with the microscopical appearances of a case of "galloping consumption"; to my eyes they are those of the results of intra-alveolar inflammation, and I proceed at once with the clinical history of the case from which that preparation was removed. I have here a table of daily temperatures taken almost throughout the whole period the patient was under observation. There is nothing very special about this chart, except the persistently high range of temperature (over 104 deg. Fahr.), and its almost regular evening fall in the earlier part of the time, which, in the latter part, when the physical signs were most extensive, became a regular evening rise. The patient was a girl, M. C., aged 19, a housemaid; her father had died of phthisis, otherwise her family history was good. In August 1875, she had had a severe cough, with pain in the left side of her chest; had lost flesh, appetite, and strength; had had slight hæmoptysis, night-sweats, and aphonia. On admission to Victoria Park Hospital on August 28th, 1876—a year later—she was anæmic, with flabby muscles and slight clubbing of the fingers. The catamenia had ceased for thirteen months, *i.e.*, since the first commencement of her illness; there had been some diarrhoea, but the bowels were now regular; there was a hacking cough, worse at night; there were slight streaks of blood in the sputa. Expansion was somewhat deficient under the left clavicle as compared with the right, and the resonance was diminished there; on forced inspiration, there were abundant moist sounds in the same place, while the breath-sounds were weak under the right clavicle, and there was slight crepitation at the left base. Nine days later, there were moist sounds under the right clavicle, which rapidly crept downwards, while there were dullness and bronchophonic resonance at the left apex, and coarse large moist sounds over the lower lobe. Throughout the remainder of September and the first half of October, the disease kept on its way steadily; on the 13th of this last month, friction-sounds were heard

* *De la Pneumonie Chronique*. Paris, 1860, 68 pp., with plate.

† *Pulmonary Consumption*, p. 3. 1871.

‡ *On the Principal Varieties of Pulmonary Consumption*. 1872.

* I hope shortly to publish chromo-lithographs of the drawings referred to in the text.

† *The Anatomy of the Lymphatic System of the Lung*, p. 57.

on the left side, and, on the 17th, on the right side. On the 27th, she died, considerably emaciated. With the exception of the remark that no "miliary tubercle" was found in any of the organs of the body, I confine myself to a description of the *post mortem* appearances found in the lungs, which alone were diseased. The left pleural cavity contained about six ounces of clear fluid. The left lung was firmly adherent to the chest-walls in the greater part of its extent. The apex was one large cavity having very thin walls, less firmly fixed to the parietes than the rest of the lung; lower down was a series of smaller cavities surrounded by a thicker pleural layer so firm as to cause laceration of the lung during removal; these cavities were lined by irregular patches of cheesy matter, and contained a reddish-yellow fluid. The lower lobe was filled with racemose arrangements of whitish or yellow bodies from the size of a small pin's head to that of a pea, some softening in the centre and a few at the upper part forming small cavities. The right lung was adherent towards the apex; at the extreme apex were some cavities full of pus, while the rest of the lung showed similar appearances to those of the left lower lobe. So far, I think, this case is complete—a matter for which I have to thank Mr. Bark and some of the clinical assistant officers of Victoria Park Hospital; and everything throughout it—the thermometric range, the naked eye appearances, and the microscopical section—points entirely to the intra-alveolar inflammation from which I started.

This was a hospital case, in which patient and careful observation was comparatively easy. It may be instructive to compare with it two less complete cases occurring in private practice, because it will be seen that, in the main and sharp features of the affection, the three agree. On September 26th, 1870, I saw, in consultation with Mr. A. Roper of Lewisham, a lad, J. M., aged 19, a hammerman. He had been ill for only four months previously. There was dulness over the whole upper lobe of the left lung, with fine moist sounds. The thermometer placed in his axilla about 4.30 in the afternoon rose in the space of one minute from below normal to 103 deg.; his pulse was 132; his respirations 44; he was covered with great beads of sweat. He had a tearing cough, with but little thickish yellow expectoration. He had never spat blood; there was no striking loss of flesh; his appetite was good, his bowels regular. Two months later, I saw him again. There was loud tubular breathing over the left upper lobe, large and small crepitation over the left lower lobe, small crepitation over the right upper lobe, with pleural friction-sounds. A week later he died. The body was generally emaciated—a condition reached in the course of nine weeks. The whole of the left lung was adherent behind, and over the upper lobe strongly adherent in front, the apex being torn in removal. The pleura, especially that covering the upper lobe, was greatly thickened. The whole upper lobe was utterly disorganised, consisting of a ragged cavity or intercommunicating cavities containing sero-purulent fluid. The lower lobe was crammed with masses of cheesy matter beginning to break down. The bronchi were thickened and cheesy. Over the upper lobe of the right lung, there were signs of recent pleurisy, a few easily broken bands, with some fluid in the pleural cavity; the upper lobe had yellow deposits scattered all over it, and broke down somewhat easily; the middle and lower lobes were congested, but scarcely broke down under pressure. There were no "miliary tubercles" anywhere; the bronchial glands were healthy, and there was nothing abnormal about the larynx and trachea.

The statement I have already made elsewhere* that these cases of "galloping consumption" are the most difficult to unravel, is my excuse for quoting another case in private practice even less complete than the last. M. A. G., aged 22, a governess, consulted me in the summer of 1874; at that time, she presented no physical signs of phthisis, though from the history, which included the remark of the medical man she had seen some time before, that her left lung was affected, she must have had a pneumonic attack probably at the left apex. There was no history of phthisis in the family. She improved in her general condition, and I lost sight of her till June 28th in the following year. There were then impaired movement below the left clavicle, and somewhat coarse crepitation there and in the supraclavicular space, with some whispering pectoriloquy. She had "spat blood" five days before. She had been ailing for some time previously, but the symptoms had been looked upon as caused by irregularities in the catamenial function, against which all treatment had been directed. At the commencement of February 1876, there was no marked dulness, but tubular respiration at both apices, with creaking on forced inspiration. On February 19th, there were dulness under the left clavicle and tubular, almost cavernous, breathing under the right clavicle, with some small creaking there on coughing; no moist sounds anywhere. The temperature was 102 deg. By the end of the month, the temperature was normal; moist sounds

could be heard after coughing; the general condition was better. But the respite was a short one. At the end of March came an attack of hæmoptysis, the physical signs remaining unchanged. At the commencement of June, she began to get worse, the temperature rising again on the 10th to 102 deg., and continuing above the normal till the 24th. On July 4th, there was no dulness anywhere, but large crepitations over the left back and both apices especially; more distant over the right back. The hot weather added to her difficulty of breathing; the signs became those of general bronchitis, and she died, much emaciated and exhausted, on the 24th of the month. There was no *post mortem* examination. These three cases of rapid galloping consumption differ only in the swiftness with which the disease advanced. The lad was carried off in nine months; one of the women in little over a year from the first definite commencement; the other, who seemed to have pretty well recovered from one apical attack, fell a victim in also little over a year to a second attack of disease at that same apex. The absolute confirmation of the pathological condition is certainly wanting in the last case, though I have no more doubt that it would have revealed precisely similar changes to those in the two preceding cases than I have that the minute change in all is that represented in the drawing taken from the first case. I would observe also that, in each of these cases, the amount of expectoration was small, till in the last the rapid breaking down of the lungs was accompanied by a sharp and general bronchitis, with increased secretion: an instance of what Addison has laid down in speaking of cases of this affection:—"The amount of expectoration depends upon the extent to which the bronchial tubes are affected."* In all three cases, there were during life signs of pleuritic inflammation; in the two cases examined, the amount and extent of the adhesion was in exact proportion to the period during which the affection to which it was secondary had existed. There was a time when pleurisy was looked upon as an evil complication of phthisis, whereas in many cases, if not in all, in spite of its painfulness, it is to be hailed as one of Nature's helps, certainly diminishing the danger of pneumothorax, and, it may be also, in its direct effects, analogous to the callus that makes a splint about the leg of the wounded rabbit, imposing on the affected lung that rest which some have attempted to bring about in these days by the use of bandages.†

It would be but waste of time to linger over cases of chronic phthisis. They differ only in point of slowness from the cases which I have described. The microscopical appearances found are almost identical, modified only by the larger amount of fibrous tissue present. The starting-point of the disease is still the same—the smaller bronchi and the alveoli.

And, if this be so—if a bronchial and alveolar catarrh be the commencement of pulmonary consumption—then the specific character of the disease is not to be sought for in the presence of some particular cell-growth, some tubercle, or phthinoplasm, but it is to be found in some particular constitutional taint, due not only to inheritance, but also, I am more and more led to believe by a consideration of family histories, to what Mr. Darwin has called "the most wonderful of all the attributes of inheritance"—reversion.‡ And, if this predisposition, directly or indirectly inherited, to repeated bronchial and alveolar catarrh, and its further results, be the only specific character of phthisis, then, in the chronic cases at least—for, in the acute ones, we are powerless—our capacities of assistance are still large, though, to quote Addison again, "our resources are purely preventive" (*loc. cit.*, p. 19). We are at least able "to improve, strengthen, and fortify the general constitution...to remove all the predisposing and avoid all the exciting causes of inflammation of the lungs and their appendages" (*ib.*). And these measures are no less necessary in the cases which, like the third I have given, may at any time, so far as the individual patient is concerned, take on an acute course. I cannot but think that the fatal advance of the disease in that very case might have been once more arrested had there not been a want of care which amounted to an absolute neglect, till too late, of the second attack of apical pneumonia.

In practical illustration of these views, I would mention two cases in my own experience which might easily, I am sure, find themselves repeated in the experience of older physicians. Both are men over 30, tall and delicately made; both are without any close physical relationships; both have presented the same symptoms of what I believe to be bronchial and alveolar catarrh. Beyond this, both happen to be men who are able to recognise the possible danger of this repeated catarrh, and, in another particular unlike our hospital patients, are in a position which enables them to make real use of simple advice. In both, an

* *Guy's Hospital Reports*, series ii, vol. iii, p. 19.

† See Berkart, *Lancet*, 1873, vol. ii, p. 552.

‡ *Animals and Plants under Domestication*, 1868, vol. ii, p. 372.

* See BRITISH MEDICAL JOURNAL, May 13th, 1876, p. 591.

attack of hæmoptysis, not large in amount, generally a spitting up of gobbets streaked with blood, or rust-coloured, has been preceded for a short time by a feeling of malaise and, as is apparent later, slight loss of body-weight. Cough and tickling in the throat have been followed by the hæmoptysis; the temperature has exceeded the normal by from one to three degrees; the physical signs, though on opposite sides of the chest in the two, have been the same; distant small crepitation about the second intercostal space on the right or left side; the slightest possible, if any, dullness; in one of the two, the slightest possible shrinking on the affected side after the second attack of blood-spitting. One is abroad, the other in England; both feel the benefit of a bracing, not a relaxing, air. In both, the attacks have come on after increased exertion and some exposure to cold. Both are now—and I heard of or from them very lately—in good condition and able to fulfil the daily needs of their work.

I might quote cases from hospital practice of a similar kind; but these are, I think, sufficient to show that we have to deal with a bronchial congestion which might go on to a further and serious alveolar catarrh.

I turn aside for the moment, to consider very briefly the statistics with which I have been concerned in hospital practice during the last ten years of cases of what I believe to be the purely intra-alveolar and most common type of pulmonary consumption.

The statistics set forth in the table are taken out of a number of over 10,600 cases. Every case in which there was the slightest doubt as to the diagnosis has been omitted. Of the 849 cases thus tabulated, it was possible to draw a very decided line in 421, or nearly one-half, in which one lung alone was affected. Of the other 428 in which both lungs were affected, the mischief was about equal in 314; in 114, it was more apparent on one side than on the other. Throughout, as in the statistical results of Dr. Hughes and others, the numerical preponderance is slightly on the side of the left lung. It must, at the same time, be remembered that the results obtained are only those of out-patient practice, in which large numbers of the worst cases would not appear, on account of inability to leave their homes; and the same remark applies to the comparatively larger number of men attacked as compared with women, a result, for many reasons, obviously untrue. One of those reasons is the well recognised fact of the influence of pregnancy in the early and rapid death from phthisis; and I cannot but think that this fact has been overlooked by various writers, who seem to take it to be almost demonstrated that males are affected in greater numbers than females. The Drs. Williams are somewhat contradictory on the subject. Dr. Pollock's cases, like mine, were those of out-patient practice, and show a large preponderance on the side of the men. I can only offer that the comparatively large number of cases I have seen of death in women at so early an age as twenty, soon after their first confinement, coupled with the fact that more women, married or unmarried, die from phthisis under the age of thirty than men—though my experience, as the elder Dr. Williams says,* may rest only "on the hazy tokens of vague memory"—lead me to a very different conclusion. This conclusion is also supported by the results obtained by Dr. Mayet in a paper published in the *Lyon Médical*.† He gives the numbers admitted into the Lyons hospitals for this disease in 1873 as 860 males and 596 females, or a proportion of the former to the latter of three to two; at the same time, he notices its occurrence between the ages of eleven and fifteen almost exclusively in female children. And, apart from the influence of pregnancy, this liability to early death from phthisis in women is not to be got rid of by such statistics as those of hospitals. In truth, the seekers of advice at hospitals have been to a very great extent sifted, as it were, unconsciously before they come; and, from statistics thus sifted in the first instance and then pared down, as my own have been, the conclusion reached is at best a guess.

Of statistical results less carefully reduced by elimination, I am compelled, from my own reasoning, to consider the conclusion even more misleading than a guess. Grisollet's repetition of Laennec's statements is carried much further to-day, when it is argued by a German physician‡ that, because destructive change has been found in the right middle lobe of the lungs in twenty-seven persons affected with syphilis, this condition is especially characteristic of syphilitic lung-affection. The mention of syphilitic lung-disease brings me once more to the question whether or not there is a separate phthisis of the fibroid kind due to this poison. The subject has been very fully discussed lately at the Pathological Society, and, though many cases were brought forward

as illustrations of this particular affection, and though my friend Dr. Goodhart has kindly allowed me to read the notes of all the cases on which he based his remarks, I am compelled to say that they do not agree with the description of the very few cases quoted in my second Goulstonian lecture. They include mainly cases of gummata, gangrene, ordinary yellow deposits, with destruction of tissue or partial fibroid change. The case of a man with well marked syphilis, whom I mentioned more than a year ago as being under my observation, has impressed me still further with the rarity of this affection, a rarity more recently insisted upon by Drs. Wilson Fox and Pye-Smith. The *post mortem* examination of this last case revealed, indeed, a chronic pulmonary consumption in a body which had abundant evidences of syphilitic disease. But the condition of the lung was in no way like that described in my lectures and represented in these drawings. On the other hand, Fournier,* who recognises this particular form among others of "syphilitic phthisis" under the name of "pneumopathies hyperplasiques simples", gives a description of it which might indeed belong to those drawings:—"Les tuyaux bronchiques aboutissant à ces foyers scléreux sont généralement déformés, aplatis, oblitérés, et se terminent en ampoules. Quant au parenchyme pulmonaire proprement dit, il n'existe plus; il est remplacé par une gangue compacte, fibroïde, ou scléreuse à son degré le plus avancé." I cannot sufficiently assert that, in these uncommon cases, it is with syphilis of the lung, accompanied by all the clinical symptoms of pulmonary consumption, that we have to deal, not with the most ordinary form of lung-disease in a syphilitic subject.

Before I leave this subject of fibroid phthisis, I would refer, for the mere sake of doing justice to older workers, to that form due, as the Germans say, to the inhalation of dust. I had thought, when I wrote on this subject some eighteen months back, that Weper had been the earliest observer of this disease and its cause. But, in Albert Haller's collection of *Disputationes ad Morborum Historiam et Curationem facientes*, published at Lausanne in 1757, is an older paper on this subject: "Georg. Dan. Coschwitz et auctor Joannes Bubbe de Spadone Hippocratico Lapidarum Seeburgensium Hæmoptysin et Phthisin Pulmonem (Pulmonalem?) vulgo die Seeberger Steinbrecher Krankheit Präcedente (Halæ, Julii 1721)." At page 118 of this work, the authors speak of "Pulvis ille a lapidibus effossis sub illorum effabricatione ad usus mechanicos secedens, ac sub respiracione in pulmones attractus, ibique indole sua terrea et adstringente tunicarum stricturas efficiens, variæque vasa quoque interspersa afficiens, sanguinisque legitimum circulum impediens."

The hæmoptysis of which I have spoken as occurring in the three cases of acute galloping consumption, like that in the two whose condition of lung is happily very different, was due, I believe, to the temporary congestion of the smaller bronchi, long ago referred to by Dr. Barlow and others, and more recently described by Dr. Dührssen,† in his paper on the treatment of hæmoptysis, as "Die initiale Lung-enblutung". There is another cause of loss of blood: a slow oozing either from degenerated bronchial capillaries or from small degenerated vessels in the walls of cavities. But the most dangerous is the bleeding from such an aneurism of the pulmonary artery as is seen lying in a cavity in this drawing. The man from whom the lung was removed died in the Victoria Park Hospital from suffocative hæmoptysis. Dr. Douglas Powell has tabulated, in the twenty-second volume of the *Pathological Transactions* (page 41), fifteen cases of fatal hæmoptysis of this kind, in twelve of which the source was found to be the rupture of either an aneurism or varicose dilatation. In two, the vessel was diminished or obliterated beyond. In this case of mine, the branch of the pulmonary artery runs along the wall of a moderately large cavity, and from the free side of the vessel bulges an aneurism which would hold an ordinary marble. The rupture has taken place in the sac just, as seen from the cavity, above and outside of what may be, for convenience sake, called the entrance of the artery into the sac. A bristle passed onwards into the branch beyond the dilatation travels only a very little way, and the artery in this case also seems to be diminished in calibre or obliterated.

I am afraid such cases as this are but pathological curiosities, reminding us only of the importance of insisting, in cases of chronic phthisis, on the absolute necessity of avoiding all exertion which would increase the blood-pressure in the pulmonary artery, the degenerated and unsupported branches of which are an ever present source of danger.

My apology for dwelling so long on isolated cases of phthisis is my belief that any rational treatment of the affection must be based on a careful study of individual cases, not on a study of pulmonary consumption as a typical disease with certain symptoms and a certain

* *Pulmonary Consumption*, 1871, pref., p. xii.

† "De la Phthisie Pulmonaire dans les Hôpitaux de Lyon". *Lyon Méd.*, October, 1876, tom. xxiii, p. 189.

‡ Granddier, "Ueber Lungensyphilis und ihre Heilbarkeit durch die Schwefelquellen zu Neudorf". *Berl. Klin. Woch.*, 1875, No. 15, p. 195.

* "De la Phthisie Syphilitique." *Gaz. Hebdom.*, 1875, No. 48, p. 763, etc.

† *Deut. Archiv für 1875*, vol. xvi, p. 393.

course. As an anonymous writer happily puts it in a late number of the *Medical and Surgical Review* (January 1877, p. 19): "There is no treatment of phthisis; there is a great variety of treatment, as there is a great variety of temperament, for those that suffer from phthisis." It would be idle to do more than suggest, as I have done throughout my remarks here and elsewhere on the natural history of this disease, the limits of prognosis in any individual case. Unhappily, those limits are often narrowed by the carelessness of the patient, who is blinded to his danger, or by the obstinacy of friends who are unwilling to believe the truth. And in this particular alone perhaps some of us may liken ourselves to that illustrious physician who is described by Tacitus* as "non quidem regere valetudines Principis solitus, consilii tamen copiam præbere".

CASE OF HYDATID CYST OF THE LIVER, CURED BY A SINGLE ASPIRATION:

WITHDRAWAL OF EIGHT PINTS AND A HALF OF PUS.†

By J. B. BRADBURY, M.D., F.R.C.P.,
Physician to Addenbrooke's Hospital, Cambridge: etc.

On September 29th, 1876, I was asked to see, in consultation with Mr. Parkinson of Melbourn, a married man, aged 42, living at Barrington. The man was exceedingly ill, suffering from enlargement of the liver, and it was feared that he could not live many days. The history of the case was as follows. Five or six months previously to my seeing him he had had pain at intervals in the abdomen along the region of the transverse colon, which was not severe enough to prevent his working. The pain passed away "all at once" for some time. Nine weeks before I saw him, he caught cold and had headache. He remembered shivering and cringing over a large fire. From this he somewhat recovered, but about a fortnight afterwards he felt considerable pain in his chest and body, and observed his body swollen. He became very weak and lost flesh considerably. The pain increased, and, at one time, he had slight jaundice, with œdema of the legs. He never vomited.

On carefully examining the case, Mr. Parkinson and myself found a smooth globular tense swelling occupying the epigastric and hypochondriac regions, and encroaching on the umbilical and right lumbar regions. A feeling of fluctuation was perceived over the swelling. There was no redness of the skin, and not much pain on palpation; but, on placing the hand over the swelling, a friction-fremitus could be felt. There were no irregularities noticed on the surface of the swelling. The percussion dullness extended from the right nipple to the level of the umbilicus in a vertical line. The upper line of dullness extended nearly horizontally round the right side, being rather higher in front than behind. The lower line in front was convex downwards, the dullness extending lower on the right side than on the left. The lower edge of the liver was much thickened. There was bulging of the lower ribs on the right side, producing decided asymmetry. On the right side, there was good vesicular breathing above the line of dullness, which posteriorly extended downwards from the middle of the scapula. Over the dull region there was bronchial breathing and ægophony. The spleen was not enlarged. The urine was non-albuminous. The temperature was 99.2 degs. Fahr.

The man's aspect was worn; his features being drawn. His face was very pallid. He was very much emaciated.

The patient not being well off, I suggested, with Mr. Parkinson's concurrence, that he should be removed to the hospital for the purpose of introducing an aspirator into the liver. This was done on October 1st by Dr. Humphry, and eight pints and a half of pus were withdrawn, a large needle being used. About three ounces of the fluid were much clearer than the rest, which was thick and flocculent, so as at times to block up temporarily the instrument. The pus contained hooklets and shreds of hydatid membrane.

Careful notes were taken of the progress of the case from day to day after the operation, but with these I will not weary you. Suffice it to say, that the patient's progress was in most respects satisfactory. No eruption of urticaria and no sickness followed the aspiration, and there was but little abdominal tenderness. As is usual after tapping a hydatid tumour of the liver, the swelling returned after a few days, but again gradually subsided. The only features in the case which for a time gave one anxiety were the occasional elevations of temperature and the abnormal percussion dullness persisting on the right side of the thorax. In regard to the temperature, it was for some time

subject to somewhat regular variations, an increase taking place about every fifth day, and an almost normal standard being restored during the intervals (yet not quite normal, even then the evening temperature reaching 99 degs. Fahr.) Five such periodical rises were observed.

On November 8th, the man was made an out-patient, but I kept him under observation for some months, during the whole of which time he was taking cod-liver oil and quinine. When I last saw him, about the end of March, he was perfectly well—indeed, in better health than he had been for years, and I could detect nothing abnormal either in his abdomen or thorax.

Formerly, I should, in a case of *suppurating* hydatid cyst, have recommended the insertion of a large trocar and a drainage-tube; indeed, some of my earlier cases were treated in this way. More extended experience, however, has taught me that it is much better to use the aspirator, and if one aspiration be not sufficient, there is not the least objection to the operation being several times repeated. Fortunately, in the case I have brought before you, only one insertion of the needle was required.

REPORT ON A CASE OF UNILATERAL CONVULSIONS AND HEMIPLEGIA DEPENDING UPON A LESION OF CERTAIN CEREBRAL CONVOLUTIONS.

By BYROM BRAMWELL, M.D.,
Physician and Pathologist to the Newcastle-upon-Tyne Infirmary; Joint-Lecturer on Clinical Medicine and Pathology in the University of Durham College of Medicine.

At the present time, when the localisation of the functions of the brain is exciting so much attention, it is of great importance that all cases of disease which tend to elucidate the subject should be recorded. Such cases of disease are of comparatively rare occurrence, and as Dr. Hughlings Jackson has well remarked, they are the only experiments which we can observe in man. This must be my apology for bringing before your notice to-day the following notes of a case which was sent under my care by my friend Mr. Wear, Surgeon to the Newcastle-upon-Tyne Dispensary.

Mary C., aged 37, hawker, married, was admitted to the Newcastle Infirmary on May 23rd, 1875, suffering from convulsions and right-sided hemiplegia. The people who brought her to the hospital stated that she had been convulsed more or less constantly since May 10th; that previously to this date she had enjoyed excellent health, but that she had received some years ago a severe blow on the left side of the head.

Her condition was noted on May 25th to be as follows. She was a stout muscular woman, and looked much older than her years. She lay on her right side. The face was pale; the right eyelid was partly closed; the eyeballs were turned upwards, and to the left; the pupils were equal, moderately contracted, and sensible to light. There was total paralysis of the right arm and leg; partial paralysis of the muscles of the right side of the face and cheek. She was unable to protrude the tongue, which was swollen, and abraded on its right side and at the tip; the result of contact against the teeth in the convulsions presently to be described. Deglutition was natural. The patient was conscious, and understood most things that were said to her. There was no true aphasia. Speech was thick and difficult to understand, owing to the paralysis of the muscles of articulation. She could localise impressions, though not perfectly. Muscular sensibility and contractility were natural. The *tache cérébrale* was slightly marked. A depression of the size of a threepenny-piece was to be felt two inches above the left ear. Pressure and galvanism over this spot did not seem to aggravate the convulsions. Every few minutes she was seized with a convulsion. The fits were of three kinds, and may, for the sake of description, be called *slight*, *moderate*, and *general*.

Different muscles were affected in each form. The sequence of the spasm was always the same.

In the *first or slight convulsion*, the muscles of the face and neck were alone affected, and that in the following manner. Both eyes were first firmly closed, and the right corner of the mouth drawn downwards in tonic spasm, the platysma being rigid. The eyes were next partly opened. The head and eyeballs were then slowly turned to the right side. Clonic spasms now occurred in the eyelids (the left being only slightly affected), in the muscles of the tongue, the right side of the face and neck (chiefly the platysma). After a short interval, the clonic spasms became less frequent, the head and eyeballs were turned to the middle line, the eyelids were widely dilated, and the countenance presented an animated appearance. The eyeballs

* *Annals*, lib. vi, c. 50.

† Prepared to be read before the Cambridgeshire and Huntingdonshire Branch.