

before the patient feels well." The authors state emphatically that "Whatever the treatment adopted the result was the same—recovery never occurred without the continuance of the intestinal discharges or their restoration if previously arrested."

In THE LANCET of Aug. 18th, 1866, p. 184, there is a report of 201 cases of diarrhoea successfully treated at the Bloomsbury Dispensary, mostly by evacuates; a pill of half a grain of calomel with three grains of rhubarb, followed in two hours by half an ounce of castor oil. If next day the purging continued a slightly astringent mixture was given, "but this was necessary in only a small number of cases." All the patients recovered, and the report states that a considerable number of them had been previously treated at other institutions unsuccessfully by astringents. "One man had been ill for a week, taking astringents the whole time; after the above treatment he went to work the next day quite well." Twenty-two of the cases were treated with coloured mint water, of whom two only returned for further treatment. I challenge the advocates of the repressive treatment of choleraic diarrhoea by opium and astringents to produce evidence in support of their theory and practice as conclusive as that which I have given in favour of elimination. The fact is that practitioners who are "under the spell" of an erroneous theory have had no experience of the evacuant treatment which they condemn on theoretical grounds alone. I have elsewhere quoted from MM. Briquet and Mignot the result of their treatment of diarrhoea by opium. Of 200 patients who came under treatment at the commencement of the attack, no fewer than 26, or 13 per cent., passed into collapse. This is a striking contrast with the many thousand cases of diarrhoea successfully treated by Drs. McCloy and Robertson. The result of the administration of opium by the mouth would be more frequently and decidedly injurious than it is were it not for the fact that the outward flux of liquid from the blood impedes the absorption of the drug, and the diarrhoea continues in spite of repeated doses of opium for a period varying from a few hours to several days. In such cases the curative efforts of nature eject the morbid poison from the blood and bowel, together with the drug, by which an attempt is made to arrest the elimination. It is now well known that Dr. Koch failed to produce cholera in guinea-pigs by introducing the poison into the stomach, unless at the same time he injected into the peritoneal cavity a dose of tincture of opium; his object being "to render it possible for the cholera bacillus to remain longer and gain a footing in the intestine." Is it not obvious that those who endeavour to arrest the choleraic discharges by opium, especially by hypodermic injections, are repeating upon the human subject the lethal experiments which Koch and others have performed upon guinea-pigs? I have reason to believe that the majority of the profession know little more of my work in connexion with cholera than that I have treated it with castor oil. They are led to suppose that I *always* give castor oil and *never* opium; the fact being that, in my detailed directions for the treatment of diarrhoea, I indicate that while there are some cases in which there is no need to give castor oil or other laxatives—the object and effect of which is, not to increase the secretion from the blood, but to quicken the expulsion of morbid materials from the bowel—on the other hand there are many cases in which, after the expulsion of the poison, opium may be usefully given to allay irritation. It is surely not too much to expect that those who publicly criticise my practice should do me and the public the justice to ascertain what that practice actually is, even if they have not the time, opportunity and inclination to make themselves acquainted with the facts and arguments upon which is based my explanation of choleraic collapse.

The influence of an erroneous theory upon the treatment of cholera affords a melancholy illustration of the truth of the following statement by Buckle: "There is no well-attested case on record of any theory having been abandoned because it produced dangerous results. As long as a theory is believed men will ascribe its evil consequences to any cause except the right one; and a theory which is once established will always be believed until there is some change of knowledge which shakes its foundation. Every practical change may, by careful analysis, be shown to depend, in the first instance, on some change of speculative opinions."¹ A change of speculative opinion with regard to the pathology of cholera it has been my endeavour during the last thirty-eight years to

bring about, and I am confident that the time will come when it will be generally acknowledged that my efforts have been in the right direction and that their object has been attained.

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SOME PRACTICAL DIFFICULTIES ARISING IN THE DIAGNOSIS OF PHTHISIS PULMONALIS.¹

BY W. S. LAZARUS-BARLOW, M.B. CAMB., M.R.C.P.

THE importance of a correct diagnosis in this the most common of the serious diseases which the profession is called upon to treat is so great that it may not be amiss to consider all some of the practical difficulties which lie in the path of medical men. I do not propose on this occasion to touch at upon the treatment of these unfortunate patients. I leave that in abler hands than mine; but the value, if there be any, in the following remarks, arises from the fact that all of the difficulties I mention have arisen to myself even in my short experience.

If a patient come to a medical man with a history of having lost two stones in weight during four or five months, if he say that he had brought up a pint of frothy blood, that he sweated copiously at night, that he had a distressing cough and expectorated much thick, yellowish mucus, and that a near relative had died of phthisis, the fears of the medical man are naturally aroused. If on examination dulness be found over one or both upper lobes of the lung, extending downwards perhaps to the third rib or lower, with tubular, cavernous or amphoric breathing associated with many moist fairly large sounds, with increased vocal fremitus and vocal resonance, increased in the case of resonance to bronchophony or pectoriloquy, his fears are realised. The patient is suffering from phthisis and probably from very actively advancing phthisis. But such is not usually the form in which the disease is seen for the first time, and particularly it is not the form in which the general practitioner sees it for the first time. It is rather in one of the other two stages, the earliest or the later stage, though doubtless in a special hospital the typical form is seen only too often. Here I should like to mention the way in which I propose to regard the stages of phthisis. I shall speak (1) of incipient, (2) of advancing, and (3) of receding phthisis. This will eliminate the difficulty which otherwise arises from the use of the stages as (1) the stage in which tubercle is laid down, (2) the stage of excavation, and (3) the vomica condition, with the attendant paradoxes that the "last stage" of phthisis may be the most favourable to the patient and the "first stage" the most dangerous. This division seems to me to be more nearly allied to the course of the disease and to afford a better explanation of the rarity of cures, as it brings so large a number of cases under the head of advancing phthisis. For the incipient stage is usually an advancing one, and while receding above the disease may be advancing below in the lung. But it is also useful as that upon which a prognosis can be most safely based, for the whole question of prognosis depends on whether, in a patient suffering from phthisis, the disease, as a whole, is advancing or is receding in activity. As the incipient stage not only comes first in order of time, but also in order of importance and of difficulty, we will discuss the difficulties then arising in the diagnosis. The second or true advancing stage, where the disease, having once taken hold of the patient, proceeds by more or less rapid strides, I do not propose to enlarge upon, as it is by far the most easy of diagnosis, cases differing but little, and that chiefly in degree, from the typical case mentioned above. In the first place, then, it is important to recognise that in the very early incipient stage a patient may not—and, indeed, is very likely not to—have any symptoms that lead to a suspicion of lung mischief. He is run down, has perhaps some dyspepsia with nausea, and probably this dyspepsia is obstinate; he is tired and languid and seems to require merely judicious diet, tonic medicine and perhaps a sea trip. Now this train of symptoms is very common and particularly so in young women. It is very common too in early summer, after the strain of winter and spring; but it is just at this season of the year that incipient phthisis is particularly likely

¹ History of Civilisation in England, vol. ii., p. 545.

¹ A paper read at the North London Medical and Chirurgical Society, Jan. 14th, 1892.

to begin. I wish to enforce the necessity of not allowing such a patient to leave the consulting-room without an extremely careful examination of the apices of her lungs. Many times, no doubt, we shall find that our suspicions have not been verified; but I am confident that the earliest signs of phthisis are to be found in cases of this kind rather than in any other. Cough, expectoration, hurried breathing, perspiration and hæmoptysis are conspicuous by their absence; but a careful examination may reveal a little dulness in the supra-scapular fossa, a slight roughness, harshness or waviness of breathing, particularly in expiration, perhaps a few clicks, not cleared up by deep inspiration or cough, and we shall congratulate ourselves on having avoided that greatest of errors—the overlooking of the prime cause in the prominence of extraneous symptoms. I need not say that the importance of careful examination in such cases is essential to the advantageous employment of climatic treatment, and in no stage of phthisis is climatic treatment more advantageous. Perhaps we may not have time to examine for bacilli, but if we do we may be rewarded for our pains. I have notes of one case that occurred when I was house physician at the Brompton Hospital which illustrates this point very forcibly. The patient, a young girl of nineteen, had absolutely nothing the matter with her but some persistent dyspepsia, and to get sputum for examination it was necessary to make her cough. There was even then expectorated a little watery mucus alone, nothing similar to the ordinary phthisical sputum; but bacilli were present in large numbers, and within the three months of her stay signs appeared in the left apex. The fact that bacilli were discovered within the first week after her admission negatives the possibility of her having contracted the disease within the hospital.

We may now advance a little further. We have in early spring, or perhaps even in summer, a patient who has persistent slight cough, with slight glairy expectoration, which has lasted through the winter and has got a little worse; perhaps some lassitude and maybe a phthisical family history. Is the patient the subject of incipient phthisis? To my mind this all-important question is most difficult to solve. Many persons show a liability to cold and their catarrhs go on to a bronchial catarrh. It is particularly in the upper lobes that this bronchial catarrh is likely to persist for some time, and it is especially under the conditions of a prolonged bronchial catarrh that tubercle is likely to be deposited. How are we to determine whether the patient is suffering from a mere bronchial catarrh or from early phthisis? Frankly I confess that I cannot do so with certainty; nothing but time will show with absolute certainty. But there are some indications that may give one or other of these diagnoses more probability. In such a case it is of especial importance that the bodily temperature be taken regularly, and not only night and morning, when it will very likely prove to be normal, but especially in the middle of the afternoon. If the temperature rises in the afternoon from 2 to 5, but is not elevated above the normal night temperature in the evening, or only slightly, I believe the probabilities are greatly in favour of the tuberculous condition. Next we should notice the effect of causing the patient to cough while we are auscultating. The long inspiration following the expiratory effort of coughing will very possibly clear up to a large extent the sticky râles, or the clicks, which in such a patient are heard during ordinary breathing. If after repeated cough with subsequent deep inspiration, and after several auscultations, these clicks remain, the probability of phthisis is increased. Then there is help in the question as to whether the conditions of the two lungs are similar. If there is no dulness, if the moist sounds may be heard equally low on both sides, if the degree to which they are heard varies from one day to another, and if an occasional click may be heard at the bases, then the probability is in favour of bronchial catarrh. If the sounds are not heard equally low, and particularly if the left apex be more involved, there is increased fear of the condition being phthisis. The question of time will usually clear up the difficulties in these cases, and it is important not to let a patient who has had this condition in early summer enter upon the next winter without carefully arriving at a definite conclusion as to the actual condition of the chest. If, when the patient is examined in autumn, nothing is found, the mystery has solved itself; if the same condition remains or has advanced the probability is vastly increased that he is suffering from slowly advancing early phthisis, and by this time other symptoms will probably have supervened, converting the diagnosis from a comparatively

doubtful to a comparatively certain one. Nevertheless, I do not ignore the fact that a bronchial catarrh may creep on. At any rate, if we thus exercise caution and take pains over the diagnosis we shall have nothing to reproach ourselves with in case the more serious condition ultimately manifests itself. We shall in the meantime have given the patient the best chance of escaping that tuberculous disease, and shall have put him under those conditions which militate most against its rapid advance. Such considerations are amply sufficient to compensate us for the extra trouble we have taken in arriving at a diagnosis.

We now come to a very different class of case, one in which the diagnosis is no less difficult, but which cannot alter our treatment to any considerable extent, though the prognosis may be materially modified. An example of this class is very vividly before my mind, as it was one of the cases given me in my examination by the Censors' Board of the College of Physicians. I will briefly run over the chief points. A man in the prime of life was admitted to hospital with acute pneumonia; the case never had a definite crisis, but went on for about two months, at the end of which his condition was as follows: Dulness, with all the signs of fluid in the lower axilla and at the base on the right side, with a few crepitations throughout the lung; temperature irregularly raised, pulse rapid and copious perspirations. It was evident that pleural effusion had been added to the pneumonia, but the question was whether tuberculous mischief was not, after all, underlying the whole. Now the effusion at the right base raised the tone on percussion of the upper lobe, though it was by no means of the Skoda type, and thus abolished a means of comparison with the left upper lobe. The onset of the pleurisy was definite, with rigor and pain. But the onset of a tuberculous pleurisy is most commonly insidious and pain is not a marked symptom. The condition of the patient was quite explicable on either of three hypotheses: (1) unresolved pneumonia, (2) empyema, and (3) phthisis being laid down on an unresolved pneumonia. There was no tuberculous family history, and yet the man looked of a tuberculous diathesis and his finger-ends were clubbed. He had had no previous illness, no history whatever of cough or wasting; he expectorated much frothy mucus. And yet, in spite of all, there was in my own mind, from the first no doubt—and I may add that the Censor examining also fully concurred in my view—that the case was tuberculous at bottom. Upon what could that diagnosis be upheld in the face of so many contradictory signs? In the first place, there was some harsh breathing at the left apex, and this side was duller on percussion than the right, though I admit the abnormal condition of the right lung gave no satisfactory standard of comparison. Then, next, the finger-ends were clubbed. I do not know how long it takes for obstruction to the pulmonary blood-supply to exist before clubbing is present, but it appeared to me that two months was long enough. Thirdly, the peculiar hopefulness of phthisical patients was present here, and this, with the transparent skin and pearly sclerotic, together with the fact that now, two months after admission, his lung condition was not cleared up, but actually more obscure than ever, led me to the conclusion that phthisis was the disease which would later on, by rapid strides, infiltrate and perhaps excavate the lungs on both sides, but particularly the right; in short, that tubercles were being laid down throughout the area of an unresolved pneumonia. Here was a case where discovery of the bacillus would have been of inestimable advantage to the diagnosis; but I was assured that examinations of the sputum had been repeatedly made without success.

Closely allied to the above case are those somewhat rare cases of apical pneumonia. They occur more frequently in children, are accompanied with much more pronounced symptoms, and are long in resolving. One must not forget that though tubercle going on to excavation is far less common amongst young children than amongst adolescents and adults, yet that it is not unfrequently met with. If in a case of apical pneumonia in a strumous child we can get but a very poor history of onset, I do not myself see, unless delirium be marked, how we can differentiate the two diseases. Dulness, tubular breathing, bronchophony, and even pectoriloquy, are present in both, and the onset of phthisis in children is often so rapid that the mode of onset in any particular case may help us but little. I think here in many cases, though we must recognise the condition as extremely severe, we are unable to give a definite diagnosis. The case is different from broncho-pneumonia in children; moist sounds and dulness are very widespread, but they are

not as a rule confined to the apex, being heard in patches all over the chest on both sides, and particularly below the angle of the scapulæ. In children cases of broncho-pneumonia ought not usually to cause any difficulty. But it is different in adults. When broncho-pneumonia is present it may lead to a condition very similar to that occurring in basal phthisis. True phthisical cavities also rarely occur at the bases of the lung, and may be confounded with bronchiectatic cavities. A diagnosis may usually be effected by considering other symptoms—such as the deteriorated condition of health dependent upon some long-standing acute illness which has exhausted the vital forces, leading to broncho-pneumonia and the peculiar mode of expectoration with the characteristic odour of the sputum in bronchiectasis. In a short time influenza, leaving broncho-pneumonia, may further increase our difficulties in diagnosis. With regard to morbid growths in the lungs I can speak with less confidence, as I have met with but few, and those such in which the diagnosis was not difficult, and in any case not to be confounded with phthisis. Primary growths in the lung are very rare, and generally the organ is invaded from the mediastinum, and presents many points of contrast to what occurs in phthisis. I can nevertheless easily imagine that a localised, easily softening growth might be very difficult of recognition.

Having now briefly pointed out the main conditions found in the lungs which may considerably affect our diagnosis of phthisis I should like to refer to a few of the more important symptoms which, though often of extreme diagnostic importance in phthisis, are nevertheless not pathognomonic. Firstly I will deal with hæmoptysis. Dr. Burney Yeo lately said that often hæmoptysis was the most favourable condition towards the cure of phthisis, as it made the patient take adequate precautions. That is no doubt true, but we must primarily be certain that the hæmoptysis is of tuberculous origin. I need not speak of the importance of deciding whether the case be one of hæmoptysis or hæmatemesis. I assume that it is undoubted hæmoptysis. Now in middle-aged and elderly persons hæmoptysis is not so simple a matter as it seems. Most probably, I grant, it comes from a cavity with vessels running in its walls that, being unsupported on one side, have become aneurysmal. But there are two other questions to be disposed of: (1) Does the hæmoptysis depend upon the same causes as lead to cerebral hæmorrhage and epistaxis in the subjects of chronic renal disease? and (2) Does the hæmoptysis arise, as Sir Andrew Clark has shown it sometimes does, in a person of arthritic tendency and quite apart from either renal changes or phthisis? Now renal hæmoptysis, if I may so call it, may be easily diagnosed by the state of tension of the pulse, and above all by deciding by gentle percussion the extent of the cardiac area. The size of the heart will settle the question. If dulness extend up to the upper border of the third rib and beyond the middle of the sternum I believe phthisis may practically be put out of the question; for the heart in phthisical patients, in the immense majority of cases, is below the normal weight and size, while in chronic renal disease, as is well known, it is generally hypertrophied. So far I have only seen one case of Sir Andrew Clark's arthritic hæmoptysis, and in that the amount of blood expectorated was considerable and lasted over several days; the patient was about fifty years of age; there was no renal disease and absolutely no ground for assuming phthisis after many most careful examinations. On the other hand, the patient exactly answered to the type of case Sir Andrew Clark has described. I confess though that at first I regarded the blood as coming from an undiscovered phthisical cavity. Secondly, wasting may mislead us. There are few diseases in which wasting is so great or so rapid as phthisis, and yet I remember one case I saw early in 1890 in which most marked wasting took place as the result of mere inanition in a patient suffering from hysteria; she was fifteen years of age and was reported to have maintained life on half a pound of grapes and some raspberry jam for a period of three months. That fact, aided by the knowledge that she was regarded as a marvel in the small village where she lived, caused me to doubt the diagnosis of phthisis publicly given out by the medical man in attendance. I examined her most carefully, found no tuberculous mischief, but had my provisional diagnosis of hysteria confirmed in a number of ways that need not now be recapitulated. Removal from the surroundings, strict moral treatment combined with forced feeding and massage, produced in a month so considerable a change in the patient's physical condition that I had great trouble to protect her from the unkind remarks of her neighbours, who had previously been so

loud in their expressions of compassion. If she had had a slight "bronchial catarrh" at the same time I should not have felt so certain of my diagnosis. Thirdly, as regards cough and expectoration. It is necessary to remember that cough need by no means be caused by a lung condition. Irritability of the fauces, a pendulous uvula, any irritation about the larynx or in the ear may cause it, and when combined with some expectoration, as it usually is, and of lengthened duration, any of these causes may lead to an unfounded suspicion that phthisis is incipient. The granular condition of the pharynx common in cigarette smokers is a typical example of this. The cough and expectoration will last throughout a summer and give rise to alarm. Whenever, therefore, cough and expectoration are present and chest symptoms are absent or of very small extent, we must not assume the existence of phthisis until we have decided that the throat cannot possibly or sufficiently account for them. There must be a cause for them, I grant, but with patience it will be found, and possibly not in the lungs; while it is as satisfactory to find them dependent upon a remediable throat condition, for example, as it is unsatisfactory not to refer them to a lung condition upon which, notwithstanding the absence of chest signs, they may nevertheless depend. With regard to the expectoration, some slight reference is necessary. The sputum of phthisis, though typically nummulated, is not always so. Many cases, and particularly those in an early stage, produce only "bronchitic" sputum, and yet bacilli may be found in quantities. This was the character of the sputum in the first two cases I have mentioned above. Next you will find some cases of bronchiectasis and of chronic bronchitis in which the sputum is typically nummulated. With these cases one word of caution is necessary. Cases of chronic bronchitis are not always uncomplicated and often with them coexists an old fibroid phthisis; it is very necessary to inquire for a history of phthisis in early years before one concludes with certainty that the nummulated sputum in an apparently simple case of chronic bronchitis does not come from an old much-contracted cavity. Fourthly, hectic temperatures and sweating are not peculiar to phthisis; I remember at least one case of empyema where such a mistake was made. Remember also that apical emphysema may surround and mask an old nodule of tubercle. The importance of searching for underlying quiescent phthisis in chronic bronchitis and emphysema is great on account of the tendency such lesions have to smoulder on and some time or other burst into active growth. Lastly, I should like to mention two small points of practical value in the diagnosis of a cavity, and the first is that in examining a patient for pectoriloquy or whispering pectoriloquy it is advisable to make him read from a book rather than say the familiar "one, two, three," or "ninety-nine." If, in taking care that the unoccupied ear does not receive the sounds we are able by means of the auscultating ear to understand the words whispered, the diagnosis of a cavity may be absolute, but when the words are familiar we are apt to think we hear more than we actually do hear. The second point is that the character of the cough is important; an impulsive cough, seeming to rush up the stethoscope, may be heard when pectoriloquy is not obtainable, and, I believe, is of extreme value in diagnosis. Such a condition I have often noticed in cases of receding or fibrotic phthisis in which a cavity is becoming contracted. As may be easily understood, it is a particularly valuable sign from a prognostic as well as a diagnostic point of view.

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DYSPEPTIC HEADACHE: A HISTORICAL SKETCH.

By HARRY CAMPBELL, M.D. LOND. &c.

THE intimate sympathy between the head and the stomach was well known to the ancients. Thus Galen alludes to the vomiting which may follow upon fracture of the skull and to the headache which may result from gastric disturbance.¹ Coelius Aurelianus and Alex. Trallianus also, among other writers of antiquity, insist on the consensus existing between these two parts of the body,² and it has been con-

¹ Kuhn's edit., vol. viii., pp. 173, 179.

² Labarraque: *Essai de la Céphalalgie et la Migraine*, p. 24. Paris, 1837.