LECTURE XXX.

TREATMENT OF THE LOCAL SECONDARY AFFECTIONS IN FEVER—Relative importance of these affections as regards *prognosis*—BRONCHIAL AFFECTIONS—Necessity for administration of stimulants and nourishment—Danger of exhibition of tartar emetic—Failure of emetics—Turpentine-punch—Dry-cupping, poulticing, blistering—*Internal remedies:* bark, ammonia, spirit of chloroform, turpentine—ACUTE CONSOLIDATION OF THE LUNG—Its *three forms*—Treatment of the first form by dry-cupping, blisters, quinine, turpentine, and wine—Of the second form by local depletion simultaneously with the administration of wine—Of the third form, *externally* by iodine and blisters, *internally* by tonics and iodide of potassium.

FOLLOWING the plan which I have laid down in this course of lectures, I shall to-day direct your attention to the management of the secondary local affections of fever. We may classify these under four headings, according as they involve the nervous, circulatory, pulmonary, or digestive systems.

Were we to attempt to classify these local affections with respect to their importance as regards the parent disease and the safety of the patient, it would be difficult to determine whether the nervous, circulatory, pulmonary, or digestive symptoms should be considered as entitled to the first place.

In reference to *prognosis*, the predominance of cerebral symptoms may certainly be held to be of unfavourable import, and one reason for this is that their presence often interferes so materially with the attempt to combat prostration by the administration of stimulants. But, apart from this consideration, the preponderance of cerebral symptoms is more serious as always indicating—not necessarily organic change in the nervous centres—but a functional disturbance in them which reacts on all the other systems of the body.

If, however, we were to classify the various phenomena connected with the different systems of the body in fever according to the amount of their corresponding anatomical changes, we should say that the pulmonary affections are the most liable to changes of this description.

Thus, notwithstanding all the researches which have been instituted respecting the anatomical changes in typhus and typhoid fevers, no one can at present venture to say what condition of brain corresponds to this or to that symptom in these diseases; no one can accurately determine the state of the brain as regards its anatomical

changes from the observation and study of any symptom. We may recognize a condition of brain in fever in which stimulants will not be borne, and another wherein they are useful, but we may be unable to reduce either of these to an anatomical expression. As we have seen in a former lecture, there is no symptom in ordinary fever whereby we can determine the presence of actual and progressive *cerebritis* or *arachnitis*. One patient will be in a state of high delirium, with injected brain, another will have an injected brain in the absence of any such symptom.

These are important facts, most necessary to be kept in mind; but you are not to infer from this that we are altogether powerless in the treatment of the cerebral symptoms of fever. All that has been said shows only, that, in dealing with the special condition of existence to which we give the name "fever," our pathology must not be too material in its character or tendency, and that the symptoms of merely functional suffering are infinitely varied in nature, time of appearance, intensity, and their degree of combination with organic change.

I have said that of all the secondary diseases of fever those affecting the pulmonary system are the most frequently attended by anatomical change, and among these—THE BRONCHIAL AFFECTION—for primary bronchitis it does not seem to be—most especially so.

It is remarkable how silently this affection will be developed in proportion to the severity of the fever. From superficial observation the presence of serious bronchial disease might never be suspected, but on exploring the chest morbid sounds may be heard universally in front and behind. Yet there may be no severe cough, no extreme dyspnœa, or lividity of countenance.

Frequently with this secondary disease in malignant typhus an extreme degree of weakening of the heart, with softening of that organ, will be found associated. By having regard to this complication we obtain the key to the treatment which is especially indicated in these cases—namely, the free administration of stimulants and nourishment.

Here, also, the anticipative method of treatment is often indicated, for the secondary bronchial affection with a weakened heart places the patient in a position—it may be—of the most imminent peril. The heart grows weaker, and there can be little doubt that its weakened condition is repeated in the muscular fibre of the lungs and bronchi. The bronchial tubes are loaded, mucus is copiously secreted, the muscles which assist the act of expectoration become paralyzed, and, should relief not be afforded, the almost inevitable result is asphyxia and death.

These observations are simply suggestive of the necessity of adopt-

ing a decided and active system of treatment. The more closely you investigate cases of this kind, the more convinced will you be that paralysis of the circular fibres of the expectorant muscles takes place; and here we have one—perhaps the principal—reason why the liberal administration of stimulants is found so successful under such circumstances. It may be that even after recovery from the primary disease death will ensue from purely mechanical obstruction in the lungs and air-passages. This is another reason for adopting the principle of meeting the disease early. I never saw a case of death from secondary bronchial effusion except where the disease had been overlooked at first.

Now let us advert to the general mode of treatment of this complication. Suppose you are called in to a patient, say on the fourth or fifth day of typhus. You find a râle in the large bronchial tubes, extending next day into the smaller tubes. Will you call this "bronchitis" and treat it as such? Certainly not. You have before you a patient in a certain condition as regards the respiratory functions, which condition is under the influence of the parent malady. If there be any inflammation present in such cases, it is specific, asthenic, and reactive, not to be treated by antiphlogistic means. The presence of the râle is not to induce you to bleed or to apply leeches, but what you have to trust to is active and energetic stimulant derivative treatment. Some physicians recommend in such cases the exhibition of tartar emetic. Where this course is followed the patient may sink.

Now, the inveterate habit with which men in our own time were imbued, of attributing every local symptom in fever to inflammation, led to the practice of giving mercury in this condition. But you will easily see the unfitness of such a course when time is pressing and it is absolutely necessary to modify the vital, and relieve the mechanical, state of the lung which threatens asphyxia. My friend Dr. Mackintosh, of Edinburgh, strongly advocated the use of emetics in this condition; but I do not recommend them—at least they have not been hitherto successful in our hands. You will meet cases in which they will not act at all. I have seen the most powerful emetics, of various kinds, exhibited without any vomiting whatever being produced. I have known cases in which, after milder remedies had been used, the sulphates of zinc and copper utterly failed. Or the full action of the emetic may occur, and be followed by great relief of the chest; yet in a short time the suffocative state will return, and, the sensibility of the stomach being destroyed, the patient sinks asphyxiated.

But the course of treatment under these circumstances long

followed in our wards is dry cupping, blistering, and the free exhibition of turpentine in whiskey-punch. By this course our late excellent apothecary, Mr. Parr, saved many a life when the patient was almost *in articulo mortis*. He would administer a tumbler of strong punch with two or three drachms of spirit of turpentine, and repeat the dose, if necessary, in a short time. Often has he said to me in the morning, "Sir, I had to *punch* three cases last night—they are all doing well." The effects were simply wonderful, and illustrate the principle that you are not to despair in a case of fever so long as your patient can swallow.

This reminds me of a translation by Dr. Brennan in the *Milesian Magazine*:—

> Si quid novisti rectius, istud candidus imperti.
> Si non, his utere mecum.
>
> Doctors! if you have better drugs than mine,
> Say where they're hid; if not, use turpentine.

In this theatre my late colleague, Dr. Graves, dwelt largely on the value of this medicine in the secondary affection of the lungs in fever, and he has been followed emphatically by Huss of Stockholm.

In the less urgent cases you are not to forget that the disease may show a sudden and violent exacerbation; and I have often heard practitioners account for the occurrence of tracheal rattle and fatal asphyxia and excuse themselves on the supposition of a sudden effusion into the chest, when, in truth, the bronchial tubes had for days been engaged, and the affection unrecognized and neglected.

I repeat that in fever, especially in typhus, with a weakened heart, the affection of the bronchial tubes may be developed insidiously and to a great extent.

With respect to external and local applications in ordinary cases of this secondary affection, I have already spoken of the use of dry-cupping. Amongst other means may be mentioned the repeated application of turpentine fomentations; of poultices consisting wholly of linseed meal, or of linseed meal and mustard in varying proportions; and of moderate-sized blisters, covered with a linseed poultice, so that the vesicating action shall be favoured by the warmth and moisture of the poultice.

Of internal remedies, the decoction of bark, with ammonia and spirit of chloroform, is most frequently indicated; or moderate doses of turpentine may be employed with good effect. The confection of turpentine administered in peppermint water is found to be a valuable preparation. But above all it will be necessary to support our patient's

strength by the judicious administration of suitable nourishment, and wine or other stimulants.

ACUTE CONSOLIDATION OF THE LUNG in fever may be considered, with regard to practice, under several forms: First, that in which symptoms and signs of anything like acute or sthenic inflammation do not occur. The disease is in these cases more or less silent or latent, and recognizable chiefly by physical signs. You are to treat this affection by dry-cupping, blisters, quinine, turpentine, and wine.

But between these cases and others where a greater activity of the ordinary inflammatory symptoms is observed, indicating that a local antiphlogistic treatment may be employed with advantage, there exists an intermediate form which includes cases of almost infinite shades and varieties of character.

In cases of the secondary pneumonic affection which possess many of the characters of acute sthenic pneumonia, there may be pain in the side, great local increase of temperature, and distress of respiration. Here the application of a few leeches, or of the scarificator and cupping-glass, may be followed by immediate and marked relief to the patient. In many such instances the use of wine is not to be intermitted on account of the practice of local depletion. There is a point of great importance in practical medicine—one which I wish to impress strongly upon you—namely, that lines of treatment apparently opposite or antagonistic may, under certain circumstances, be employed simultaneously with success. Your treatment is to be influenced not by the *name* of a disease, but by the condition of your patient; and you may relieve local irritation by local blood-letting while you support the general system, and deal with the essential disease by the use of stimulants.

When describing in a former lecture those consolidations of the lung, especially of its upper lobe, in fever, which seemed to partake of the nature of a crisis, I said that it was often a matter of doubt whether the clearing of the lung was to be attributed to the remedial measures employed or to the spontaneous subsidence of the condition in obedience to the law of periodicity. However, a small blister or two may be used, and the application of the tincture of iodine externally, with the exhibition of iodide of potassium in combination with a tonic, may be of advantage.

I need not say to the students of large bedside experience that it is sometimes difficult to distinguish between a primary pneumonia with a symptomatic fever and states of the lung secondary to typhus or to typhoid. You will, also, be prepared to hear that this difficulty has been more commonly met with since the period of change of type

in disease. Still, during the last few years, several cases of primary pneumonia have come under our notice, in which, though with less of the general violence of symptoms once so familiar to us, we have used the lancet—moderately, it is true, but with the most rapid success. The pain, the adhesive red expectoration, the state of the heart, and the early appearance of the symptoms, were our chief guides.

The dreadful occurrence of sphacelus in consolidation of the lung in typhus is to be met by the antiseptic and stimulant treatment.

That recovery is possible in this catastrophe I have already shown you. The patient in question died after a lapse of some years from the first attack. We found recent sphacelus in one lung, and a cavity containing a dry slough, and with a firm lining membrane in the other.

LECTURE XXXI.

TREATMENT OF INTESTINAL SECONDARY AFFECTIONS.—Two chief indications: (1) alleviation of symptoms, (2) modification of typhous deposition—Poulticing—Local depletion in early stage—Analogy in variolous eruption—Danger of alterative or purgative treatment at the outset of Continued Fever—Necessity for caution—*Constipation*—*Diarrhœa*—Poultices, demulcents, sedative astringents, injections of flax-seed tea—*Tympany*—Turpentine injection—*Diet* in diarrhœa—*Perforative peritonitis*—Opium our sheet-anchor—Danger of the antiphlogistic method—Dr. Murchison on the treatment of this accident—Bran poultices and warm fomentations—*Hemorrhage* from the intestine in fever—Not to be interfered with unless continued and excessive—Treatment by astringents, opium—Illustrative case.

IN a case of enteric fever, or of a well marked typhus with more or less of intestinal affection, your efforts in reference to the treatment of the local secondary disease will be directed less to the cure than to the palliation of the symptoms, and to diminishing the activity of that process under which the *mucous* membrane and glands become the seat of the typhous deposit.

We seek to lessen the amount of change by modifying the specific and afterwards the reactive irritation.

Local bleeding and diligent poulticing are the measures on which reliance is to be placed in the first instance, while everything which might excite overaction or hypersecretion of the intestines is to be avoided. The first of these remedial measures is best effected by moderate leeching of the ileo-cæcal, and in some cases the epigastric regions, due regard being paid to the strength of the patient and to