

ST. THOMAS'S HOSPITAL.

Practical Clinical Remarks

ON

A CASE OF CROUP.

By T. A. BARKER, M.D.,

PHYSICIAN TO THE HOSPITAL, AND LECTURER ON CLINICAL MEDICINE.

GENTLEMEN,—This case is one in which the disease commenced in, and was probably for some time confined to, the larynx, admitting of great, and, it was at first hoped, complete relief by the performance of tracheotomy.

H. J. G—, horse-boy, aged thirteen, was admitted into Luke's ward on January 6th, 1859, at half-past one P.M. About ten days previous to his admission, he had slept in the cold air, after being in a theatre. This was followed by symptoms of catarrh, which increased until January 4th, and then in the afternoon symptoms similar to those observed on his admission set in, and rapidly became urgent. I saw him almost immediately after he was placed in bed. When lying quietly he seemed disposed to doze, and did not appear to be in much distress; but when disturbed for the purpose of being examined, it was evident at once that serious mischief existed in the larynx. A loud, harsh, laryngeal sound accompanied the whole acts of inspiration and expiration, and these were continuous, no interval being perceptible between the termination of one and the commencement of the other. This symptom always indicates great obstruction in the larynx. The cough, though not frequent, was loud and ringing. The respirations were 28 in the minute, and laboured; the pulse 120, small and soft. The fauces were red, but not swollen, and on the right tonsil and on the right side of the uvula were two small, white patches, which appeared to be false membrane. The chest was everywhere resonant, except about the centre of the left lateral portion, and there it was slightly more dull than on the right side. Scarcely any breath sound could be heard at any part of the chest; but this does not necessarily indicate disease of the lung in such a case as this, where the air was inspired slowly through a constricted larynx. I have seen many cases, where the larynx has been narrowed by chronic disease, in which no breath sound could be heard, although the lungs were free from disease. The absence of tumefaction about the fauces, and the apparently healthy state of the chest, indicated the probability of the dyspnoea being caused by disease in the larynx; and pain on pressure of this part, difficult deglutition, and a peculiar ringing, brassy sound of the voice and cough, removed all doubt.

In the treatment of such a case, we have to consider well what are the chances that ordinary remedies will check the disease before it has closed the larynx to such an extent as to render sufficient respiration impossible. In determining this point, we must inquire whether the disease be progressing, and the dyspnoea increasing, in spite of remedies.

In this case, no remedies had hitherto been used, and we had to be guided solely by the state of the patient when first seen. If he had been in great distress, drawing in his breath with labour and difficulty, there would have been no doubt of the propriety of immediately opening the trachea, so as to allow air to enter the lungs more freely than was possible through the larynx. But it is not safe to assume that, because there may be little dyspnoea and distress, there must be little danger. The difference between the size of an aperture through which air amply sufficient for respiration can pass, and that which is altogether insufficient, is very small; and a change from the one to the other may take place very rapidly. I have known a case where a sore throat was supposed to be cured, and no disease in the larynx was even suspected: a sudden fit of coughing was followed by instantaneous death, almost without a struggle; there was great oedema about the larynx. I have had two hospital patients, who were known to have slight disease in the larynx, but who were apparently getting better. After passing quiet nights, urgent dyspnoea and faintness came

No. 1870.

on immediately after they were awake in the morning, and they died before assistance could be procured. Indeed, this boy was himself a proof that the limit between a sufficient and a very deficient aperture is slight. When lying quietly in bed, you would hardly have supposed he laboured under serious disease; when disturbed, the urgency of the symptoms was manifest. One symptom, however, was always present, and I attach great importance to it in disease of the larynx: the act of expiration was as long as that of inspiration, and there was no interval between them. This, I believe, does not occur unless the larynx be greatly narrowed. We had further proof of insufficient respiration in the appearance of the boy. His face was dusky, and his lips livid; the veins of the neck were distended.

An emetic of ipecacuanha wine gave little relief, and I at once came to the conclusion that tracheotomy ought to be performed. I do not mean by this to deny that other treatment, in such a case, might not save life: I mean that delaying the operation would greatly diminish the chance of recovery. The disease had existed in an aggravated form for two days; the dyspnoea was at times very great; and the face indicated insufficient respiration. In these cases, the probability of a fatal termination cannot, within wide limits, be measured by the urgency of the symptoms. These, as I have stated, often increase suddenly and rapidly, not giving sufficient warning to allow of assistance; and patients die who might, by a timely operation, have been saved. Neither is this sudden increase of the disease the only risk incurred by delay. If the disease increases slowly, although symptoms do not for some time become urgent, other mischief is going on. The system becomes depressed by the circulation of impure blood, the result of imperfect respiration; and the lungs become congested; and thus the operation, if performed at last, is less likely to be successful than if performed at an earlier period. I have lost one case, because the patient would not allow the operation to be performed when it was first recommended, and when it would have given immediate and, probably, permanent relief. The lungs were then healthy; but afterwards, when the trachea was opened, although she had some ease for a short time, the lungs were greatly congested, and she died in a few hours. If we never perform this operation until we are certain that the patient will die unless it be done, we shall lose many lives which might be saved.

At five o'clock, as the boy lay in bed, he seemed so easy and tranquil, that Mr. Simon, when he arrived to perform the operation, did not at first admit it to be necessary. The great and instantaneous increase of the dyspnoea so soon as he was roused and taken out of bed, as well as the sound of the voice and cough, removed all Mr. Simon's doubts; and the trachea was opened without any difficulty, except such as arose from great hæmorrhage. It was necessary to tie one vein. In half a minute after the trachea tube had been introduced, a most extraordinary improvement had taken place in the boy's appearance. The blueness of the face, and its anxious, haggard expression, were gone; he breathed easily, became tranquil, and soon fell into a quiet sleep. I ordered him to take a grain of calomel every third hour, and to have a drachm of mercurial ointment rubbed on each leg four hours daily. He had beef-tea and milk.

He passed a quiet night, and was easy when I saw him the next day; but he breathed quickly, 40 times in the minute. This made me fear mischief in the lungs. The chest was fairly resonant; no sounds could be heard by the stethoscope, except such as were evidently propagated from the trachea. At night he became worse, and had a convulsive fit; but afterwards slept. At two P.M. the next day I found him pallid, faint, and scarcely sensible. The cervical veins were turgid, and the lips livid. Loud crackling sounds could be heard over the whole chest, and the left side had become less resonant. He died at five P.M.; forty-eight hours after the operation, and four days after the onset of urgent symptoms.

No disease was found, except in the lungs, larynx, and trachea. The upper lobe of the left lung was airless and fleshy; the rest of this lung and the right were crepitant, with here and there a little consolidation, not pneumonic. The tonsils and soft palate were injected, and covered for the most part by a false membrane, greyish, smooth, tough, and thick, so closely adherent that it seemed to send processes into the substance of the tonsils. Dr. Bristowe almost doubted whether it ought not to be regarded as exfoliation of diseased and thickened mucous membrane. There was abundance of thick false membrane closely adherent to the mucous membrane of the epiglottis, larynx, and upper part of the trachea, and some had been displaced by the operation. Lower down it was less ad-

herent and more shreddy. At the lowest part of the trachea and in the bronchi it became thicker and more adherent. Into all the tubes proceeding immediately from the bronchi, the false membrane was prolonged in the form of a nearly solid cylinder of toughish grey fibrine. It passed anteriorly into the secondary tubes of the lower lobes, and then for the most part ceased, the smaller ramifications containing puriform mucus and a few shreds of adherent lymph. In the upper lobes of both lungs the casts were prolonged even into the smaller divisions of the tubes, so that to the naked eye all the tubes appeared to be completely occupied by fibrinous casts, and these were solid, except in the two larger bronchi.

This account of the post-mortem examination proves that the larynx was in a state which required and which admitted of relief from tracheotomy. Indeed, without this proof, the necessity and advantage of the operation was shown by the instantaneous improvement which took place after the trachea was opened; and as this improvement continued for twenty-four hours, it is probable that the greater part of the disease in the lower part of the air-passages took place after the operation.

Before you determine on the performance of tracheotomy, it is of course desirable to ascertain, not only that the larynx is diseased, but also that the lung is sound—or, at all events, so sound that it can carry on sufficient respiration, provided air can obtain access to it. Percussion, in these cases, will inform you whether the lung be solid, or contains air; but the stethoscope is generally of little use. The breath sounds are usually very faint, in consequence of the feebleness of the current of air which passes through the narrowed glottis; and, such as they are, they are drowned, as it were, by the loud, harsh sound of the air passing through that narrowed opening. I had fears, in the case now before you, that disease was extending downwards. The trachea, as well as the larynx, was tender when pressed; and there was a little dullness, as I have before stated, in one part of the left lung. Nevertheless, I did not think at the time of the operation, and I do not think now, although extensive obstruction has been found in the bronchial tubes, that it was improperly done. Disease below the point where the tube was introduced into the trachea was not certain; if it existed, it was probably at that time slight, and of a nature which might admit of cure.

In cases of laryngeal disease, we often cannot be sure that tracheotomy is absolutely necessary, and we often cannot be sure there is no disease existing which will preclude the possibility of its success. I am certain that more mischief is done by postponing or omitting the operation than by hastening its performance. In my own experience, I have never seen cause to regret having ordered tracheotomy, but I have often seen cases where patients died, either because they would not allow it to be performed, or because it was postponed until too late.

Clinical Illustrations

OF

DISEASES OF THE ABDOMINAL VISCERA.

By STEPHEN H. WARD, M.D. LOND., L.R.C.P.,
PHYSICIAN TO THE SEAMEN'S HOSPITAL, "DREADNOUGHT," ETC.

JAUNDICE.

FAITHFUL records of cases are at all times valuable, either as affording confirmation of views previously entertained, or as presenting for our consideration new facts or exceptional peculiarities. I need not, therefore, apologize to my professional brethren for introducing to their notice the following illustrations of a subject which has been so effectively treated of by Dr. Budd in his excellent work on "Diseases of the Liver."

Jaundice resolves itself into two heads or divisions,—viz., 1, from partial or complete suppression of bile; 2, from obstruction to its passage into the intestine. This is the arrangement of the subject adopted by most systematic writers, and is, indeed, the only logical one. Jaundice from suppressed secretion may be further resolved into, (a) from impaired secreting structure, as in primary or secondary congestion of the liver, adhe-

sive inflammation, suppurative inflammation, atrophy, and disintegration of secreting cells; (b) from mental or moral emotions; and (c) from the presence of poisons in the blood, as of mercury, certain miasmata, the peculiar poison of acute rheumatism, &c. Jaundice from obstruction to the flow of bile through its ducts resolves itself into (a) causes within the duct, as the presence of gall-stones, inspissated mucus or bile, inflammation of the lining membrane, and probably spasm; (b) causes external to the duct, as scirrhus of the liver or pancreas, enlarged lymphatic glands, loaded state of the large bowel, pregnancy, and strangulation of duct by the products of adhesive inflammation effused around it.

I have not the materials at hand to give illustrations of all these causes, but I shall now, following the logical arrangement of the subject, proceed to give examples of several.

CASE 1.—*Jaundice from acute congestion of the liver.*—Wm. S—, a Scotchman, aged thirty-nine, was admitted into the *Dreadnought* on August 20th, 1858, having been ill for about a month, and well previously for several years. When attacked, he was in Southampton, and had been drinking hard for several days, and had eaten oysters which were bad. Is not, according to his own statement, an habitual drunkard. The attack came on with vomiting, inability to retain anything on his stomach, and diarrhoea. He had pain in the left side, but not in the right. In the course of about a week, he became jaundiced; his stools were white, and urine almost as deep as porter in colour. For the last two or three mornings he has had shiverings.

On examination, his liver was found to extend beyond its limits, below the ribs, and to the left side, and there was tenderness on pressure. The stools were ex-bilious, the urine was charged with bile, and the skin and conjunctivæ were jaundiced. The tongue was moist and nearly clean; the pulse rather frequent. Ordered milk and beef-tea; five grains of calomel at night; a drachm of compound jalap powder in the morning; and the following mixture three times a day: compound decoction of scopolarium, an ounce and a half; dilute nitric acid, ten minims.

Aug. 21st.—The bowels have been freely relieved, but the motions are ex-bilious, and there is marked tenderness over the left lobe of the liver. Ordered, dry cupping, and the nitro-muriatic acid bath night and morning.

23rd.—Says he feels better, and has lost the tenderness. Two stools since yesterday, with faint indications of bile in them. To repeat the dose of calomel at night, and the compound jalap powder in the morning.

24th.—Stools still ex-bilious, and liver enlarged. It was thought advisable to put him under the influence of mercury, and he was ordered a grain of calomel, with a quarter of a grain of opium, every four hours.

This plan was continued up to the 27th, when, the mouth being well affected, it was discontinued. There was now decidedly more bile in the stools, and the liver seemed reduced in size. He was ordered five grains of iodide of potassium, half a drachm of extract of taraxacum, in an ounce of water, three times a day; and the compound iodine ointment to be applied on flannel over the region of the liver.

On the 28th, the stools were more bilious; and on the 30th, the urine was free from bile, the motions were duly charged with it, and the jaundice was disappearing. From this period, the liver continued to perform healthfully its functions, and he was discharged, cured, early in September.

CASE 2.—*Jaundice, from congestion of the liver.*—A Cephalonian, aged twenty-four, was admitted into the *Dreadnought* on the 26th of July, 1858. Had been jaundiced for sixteen days, and, when attacked, had pain over the stomach. His liver, on admission, extended somewhat beyond the normal limits; but there was no tenderness on pressure, nor pain, either constant or paroxysmal. His motions were white; urine of a deep colour; skin and conjunctivæ deeply jaundiced. Ordered, milk and beef-tea, a dose of compound jalap powder, and the following: dilute nitric acid, ten minims; extract of taraxacum, ten grains; compound decoction of scopolarium, one ounce and a half: three times a day.

July 27th.—Bowels not open. Ordered, five grains of calomel, to be followed, after a few hours, by an aperient draught.

28th.—Motions confined, and quite ex-bilious. Ordered, five grains of calomel, and a drop of croton oil, which produced free action of the bowels, but no appearance of bile.

Aug. 1st.—Stools still ex-bilious. Ordered, calomel, one grain; opium, a quarter of a grain, three times a day: mercurial ointment, compound iodine ointment, equal parts, to be rubbed over the liver, and a hot bath every other night.