

and integrity of the larynx, but without evincing any tendency towards tuberculisation. On the other hand, several cases, mostly in men, have been noted where, as in the present instance, a slow, gradually progressive inflammation of the larynx has undoubtedly ushered in tubercular disease both of the larynx and lungs. It is impossible to state with precision when the simple inflammation merges into the tubercular unless careful microscopical examination of the sputa be made from time to time with a view to the detection of the bacillus of tubercle. This is undoubtedly the variety of laryngeal tuberculosis in which the laryngeal precedes and leads to the pulmonary deposit, and may therefore justly be called primary laryngeal tuberculosis.

3. *The presence of the tubercle bacillus in the sputum and laryngeal secretion, and its value as an aid in diagnosis and prognosis.*—Of the laryngoscopic appearances in the case the utmost that could be stated was that they indicated a severe form of chronic laryngitis. The chest symptoms showed a bronchitic condition, with probably slight consolidation at right apex. The temperature chart afforded small indication, for the average of fifty observations was, morning 98·2°, evening 98·6°. The discovery of the bacillus in the sputum supplemented in a most material way the other signs and symptoms, and afforded undeniable evidence that the case was of a more unfavourable character than was at first apparent. From March 28th, 1883, till the date of death (Feb. 15th, 1884), the sputum was examined on seventeen occasions, at about regular intervals, for the bacillus of tubercle, with the following results. On each occasion but one they were readily detected. In fair abundance in every field at first, their numbers afterwards seemed slightly to diminish, and in several fields they were not detected. They again slightly increased, and on Aug. 12th a very few were found in the laryngeal secretion on its removal by a brush. On Sept. 22nd, on testing the mucous and purulent portions of the same sputum, they were found from two to three times more abundant in the mucous than in the purulent portion. On Dec. 15th, after a hæmorrhage to the extent of one or two mouthfuls, marked signs of disease at both pulmonary apices, especially the right, and infiltration of the base of the right lung, they were present to the number of from fifteen to twenty in the field, rather isolated, but occasionally two lay in contact in a V-shaped arrangement, or three or four together, but not in contact. On January 16th, after steady persistent treatment by iodoform insufflation and inunction to the extent of inducing iodoform intoxication, the sputum, muco-purulent in character, contained as many as from forty to fifty in the field, generally not in contact. On Jan. 19th, under a continuance of the iodoform treatment, they could not be detected in the sputum, this being the only occasion when such was the case, but when the examination was repeated five days afterwards they were readily detected. It was probable, therefore, that some error in the preparation of the sputum interfered with their detection on the 19th. On Feb. 4th they were again found in the laryngeal secretion to the extent of fifteen in one field. The bacillary history of the case may therefore be shortly summarised by stating that these organisms assisted materially in the diagnosis, that they steadily persisted in the sputum, despite constant treatment by metallic astringents, antiseptic sprays, and iodoform insufflations to the larynx, and that their presence was not accompanied by febrile or other constitutional disturbance. Treatment by iodoform was pushed as far as was considered judicious, but without effecting any reduction in the number of the bacilli, although it diminished the putrefactive odour of the sputum. It is worthy of particular notice that on post-mortem examination, not only were they found in the secretion of the laryngeal ulcerations, but also in the mucus coating the crico-thyroid area, without subjacent ulceration. In the region of the ventricular bands and in the ventricles of the larynx, where they were from three to four times more abundant than in the crico-thyroid region, their presence was associated with deep destructive ulceration. This diversity may have been partly owing to the ventricles of the larynx affording a more secure nidus to these organisms, but probably partly also to the fact that the inferior regions of the larynx and the trachea are lined by a mucous membrane which is closely applied to the inner surfaces of the tube, and whose deeper layers (submucosa) contain strong bands of elastic longitudinal fibres. Whilst, in my experience, it is not uncommon to find erosion of the epithelium in the trachea and lower division of the larynx in phthisis, one

can never detect the same destruction as in the neighbourhood of the ventricular bands and arytenoid cartilages. The cartilaginous framework of the larynx and trachea has a resistant power which the softer tissues do not possess, and though, as would appear from the present case, the bacilli of tubercle cling to the whole of the respiratory tube, it is only in the softer tissues of the larynx and in the delicate alveoli of the lungs that their presence leads to deep destruction of tissue.

4. *Certain toxic effects following the use of iodoform.*—This drug was applied by insufflation and by inunction over the larynx and in the axilla. The difficulty in swallowing hindered its administration by the stomach. The formulæ used were, for insufflation, from one to five grains of iodoform with one-sixth to half a grain of acetate of morphia twice daily, and for inunction one part of iodoform to seven parts vaseline, also twice daily. When the larger doses of iodoform were reached, the patient became violent and quarrelsome, and a condition of excitement closely resembling the first stage of alcoholic intoxication was induced, which subsided on the discontinuance of the remedy. Considerable benefit to the local symptoms was experienced at the same time, but though the remedy was pushed as far as was conducive to safety, it was found that no effect was produced upon the bacilli of tubercle, which continued still to be found readily in the sputum. Inunction without insufflation also produced slight excitement and confusion of ideas. In a previous communication to a contemporary¹ I had already directed attention to the toxic action of the drug, and though the views then expressed by me did not find favour with certain continental authorities,² further experience has confirmed me as to their correctness. Dr. Batty Tuke, who saw the case now under notice with me, has informed me that, soon after seeing my patient, he was called to another case, in which the free use of iodoform produced the same symptoms as those above described, which disappeared on the discontinuance of the use of the drug. M. Maitre³ considers that, taken by man in doses of from five to six grains, it causes no notable symptoms; but my experience is that a smaller dose may readily induce toxic symptoms, particularly in weakly individuals.

With regard to the action of this remedy in laryngeal tuberculosis, although probably by its anæsthetic action it has a soothing effect on the throat, it does not seem to have any effect upon the disease. It does not diminish the number of bacilli in the laryngeal secretions, nor does it appear to promote the healing of the laryngeal ulcers. Little effect can, however, be expected from any remedies in such cases, unless use be made of them at very early periods of the disease, for its later stages are characterised by such an amount of laryngeal destruction and constitutional deterioration as invariably leads to a fatal termination.

Edinburgh.

A CASE OF LITHOTOMY WHERE THE NUCLEUS OF A LARGE PHOSPHATIC CALCULUS WAS THE WHALEBONE MOUTH-PIECE OF A TOBACCO-PIPE.

WITH REMARKS.

BY REGINALD HARRISON, F.R.C.S.,
SURGEON TO THE LIVERPOOL ROYAL INFIRMARY.

APART from the general interest attached to cases of this kind, which, curiously enough, are not very uncommon, there are, in this instance, two points upon each of which a few remarks may be made.

Robert H—, aged thirty-three, a seaman, was admitted on June 23rd, 1884, into the Liverpool Royal Infirmary suffering from symptoms of vesical irritation. The history elicited the following points:—Eight years previously the patient had gonorrhœa, from which he recovered quickly. In December last he had some scalding after micturition, and on the 13th of the same month he was admitted into a hospital in Wales with a fracture of the leg. Whilst in hospital he appears to have suffered from vesical irritation and passed two pieces of calculus; his symptoms continued

¹ Edinburgh Medical Journal, January, 1883.

² Centralblatt für klinische Medizin, 1883, No. ii.

³ Wood's Treatise on Therapeutics, p. 334. See also British and Foreign Medico-Chirurgical Review, vol. xxxiv., p. 247.

on his return home to the Isle of Man. On admission into the Liverpool Infirmary I found him suffering from calculus in the bladder. Upon examining the calculus with the lithotrite it proved to be large, soft, and peculiarly shaped. The last-mentioned circumstance made me resolve to cut instead of to crush.

On June 27th I performed lateral lithotomy, and removed a large phosphatic calculus, which broke under the grasp of the forceps, and disclosed the whalebone mouthpiece of a tobacco pipe, to which a small piece of rotten string was attached. It was noticed that the smell of tobacco in the mouthpiece was quite distinct. As the phosphatic envelope crumbled under the pressure of extraction, it was impossible to estimate correctly its weight. It must have been very large. About an ounce of these fragments was collected. The exact size of the mouthpiece is shown in the drawing. The patient made a good recovery, and left the infirmary on July 28th.

On the fourth day after the operation I showed him the foreign body, and asked whether he could offer any explanation as to how it got into his bladder. He remarked that "he was glad to see it again. He had swallowed it whilst playing with some companions on board ship three years ago. He felt no pain at the time, nor until last December, when the symptoms of stone became manifest." He was frequently spoken to in reference to the improbability of such an explanation, but he would never admit of any other construction being placed upon the word "swallowed" than that usually adopted. In this statement of the patient will be found the first point of interest. Though so highly improbable, was it possible? The only case I know of which would at all substantiate the idea that a foreign body of this nature could find its way into the bladder from the intestines is one recorded by Sir Alfred Roberts, of the Sydney Hospital, who removed by



lithotomy a piece of slate pencil two and a quarter inches long, which it was alleged had been swallowed. Commenting on this case, the author says:—"I have left no stone unturned to elucidate the truth in this very interesting case, and can only state that after much hesitation I have arrived at the conclusion that the pencil was swallowed by mouth and made its way by inflammation and ulceration into the bladder."¹

The second point of interest is in reference to the circumstances generally which determine us in the selection of lithotomy or lithotripsy. These can never be regarded in the light of hard-and-fast rules. In this instance, in the absence of all history, I had every reason to believe that I had to deal with a calculus which, though large, was still, by reason of its softness, quite within the limits of crushing. Had such an operation been attempted, the splitting of the nucleus into fragments would almost certainly have been attended with a fatal result. In this instance the peculiar shape of the calculus rendered me suspicious that I had something unusual to deal with; further, there was a consciousness that there was not that easy access, with the open jaws of the lithotrite, to all parts of the calculus, which is an important feature when crushing has to be undertaken. On these points I mainly relied in deciding in favour of lithotomy, a choice which was more than vindicated by the very unexpected discovery that was subsequently made. In a case previously reported,² where I extracted a pencil-case three and a half inches long from the male bladder with the lithotrite, the patient came under my notice within a few hours of the alleged introduction, by other persons, of this article up his urethra, and before sufficient time had elapsed to permit of the deposition of phosphates upon it.

Liverpool.

¹ Medical Times and Gazette, July 30th, 1859.

² THE LANCET, Aug. 11th, 1877.

CASE OF REMARKABLY SLOW PULSE WITH EPILEPTIFORM SEIZURES; AUTOPSY.

By A. T. GIBBINGS, M.D. LOND.

THE following case, read in connexion with one reported by Mr. St. George Mivart, in THE LANCET of Jan. 3rd, seems to me of sufficient interest to be put on record.

J. B—, aged sixty-six, a tall spare man, with well-marked arcus senilis, had pleurisy as a young man, and presents the marks of cupping for the attack; he says that his pulse has been very frequently intermittent ever since he can remember; has worked rather hard at his office, and has had a good deal of anxiety and worry in domestic matters. There is no family history of any neurosis. He has never had syphilis, gout, or rheumatism, and has been strictly temperate. He consulted me in May, 1882, for weakness and difficulty of breathing, especially on exertion. He complained also of attacks of dyspnoea at night, lasting sometimes for a few minutes, sometimes for an hour or so; also of a troublesome noisy cough. Urine normal; heart and lung sounds normal; pulse intermittent, about 60. He attended more or less regularly for some two months, improving considerably under treatment, though not altogether losing his dyspnoea. From Oct. 21st to Nov. 21st he was confined to the house with an attack of bronchitis, attacks of dyspnoea occurring irregularly, chiefly at night. He returned to business on Nov. 21st, and attendance was discontinued until Dec. 2nd, when I was again sent for. I was struck by the slowness of his pulse, which was 44, and quite regular. He was ordered a mixture of arsenic and strychnia. He went in a cab to business, but had frequent feelings of faintness, for which he was obliged to resort to alcohol or ammonia. On January 3rd, 1883, he was seen in consultation with Sir Andrew Clark, having become steadily worse. He now complained of dyspnoea on the least exertion, and of frequent feelings of faintness. His pulse was now 34, regular and synchronous with the heart beats. Walking up and down the room did not increase the frequency of the heart beats. Sir Andrew Clark recommended that he should be kept in the recumbent position, be fed every three hours, and have six ounces of port or burgundy in the twenty-four hours. He continued to take considerable quantities of nourishing food, which he digested well. Notwithstanding this, the sensations of faintness became very frequent, the pulse steadily declined in frequency, and now a new symptom showed itself. This consisted in frequent epileptiform attacks. The face became deadly pale, the pupils dilated, and the eyes fixed; the pulse ceased to be felt at the wrist. After a few seconds it returned feebly; the face then flushed all over, and clonic convulsive tremors lasted for five or six seconds. The first indication of an attack was the non-recurrence of the usual pulse beat. Almost directly there was a moaning sound, and the face became pale and fixed. This sequence was observed repeatedly, so that with the finger on the pulse I knew that an attack was beginning a second or two before the face changed. He had generally an aura, consisting of a feeling of hot fluid at the back of the neck. On Jan. 20th he was seen in consultation with Dr. Moxon, when his pulse was 22, full and regular, his heart beats corresponding in time. Dr. Moxon could find no evidence of disease of the heart or lungs. The brain was active and clear, and there were no nervous symptoms. Dr. Moxon recommended a trial of nitro-glycerine and atropia. Matters did not mend at all. The epileptiform attacks became very frequent and distressing; rising in bed would generally bring them on, but they also occurred when at absolute rest in the recumbent posture. On the 26th Dr. Moxon again saw the patient, and it was agreed to try bromide of potassium in thirty grain doses, with the hope of checking the fits, which were now most distressing. This he took for two days, but became decidedly worse. The pulse fell to 13, then to 12 on January 28th. The nurse's journal says on the morning of the 28th, "Free from attacks for one hour during the night, all the rest of the night he passed from one fit into another." A considerable amount of albumen was found in the urine. I now decided to discontinue all medicine. He began again slowly to improve, and gradually by February 26th the pulse had reached 31; the albumen had soon cleared away. After this he got up every day and worked two or three hours at

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The Library of the College will be closed on Friday (this day) till Monday, the 16th inst., for the purposes of the Hunterian Oration and Festival. The Oration will be delivered in the theatre by Prof. John Marshall, F.R.S., LL.D., on Saturday, the 14th inst., at three o'clock precisely.