Illustrations OF HOSPITAL PRACTICE: METROPOLITAN AND PROVINCIAL.

ST. GEORGE'S HOSPITAL.

THREE CASES OF SYPHILITIC DISEASE OF THE LARYNX:
IMPENDING SUFFOCATION: LARYNGOTOMY:
RECOVERY.

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AMONG the organs which come under the cognisance of the surgeon, as not unfrequently affected with syphilitic disease, we find the mucous and submucous tissues of the larynx. This may arise simply from an extension backwards of the more primary affection of the throat; but most frequently it appears independently of this affection, and at a considerably later period of the disease. Thus, in an analysis of fifty-six syphilitic patients recorded in the *British and Foreign Medico-Chirurgical Review* for July 1861, eighteen were found to be affected by disease of the larynx. And, according to Ricord, "the proportion of cases of laryngeal disease is greater among those who have tertiary than those who have secondary syphilis."

In many of these cases, it becomes necessary to open the windpipe, in order to prevent impending suffocation; and this was found to be necessary in the two cases detailed below, which occurred while I was house-surgeon to St. George's Hospital, and in which I performed that operation.

CASE I. Hannah G., aged 23, general servant, was admitted November 2nd, 1863, into Queen's Ward, under Dr. Pitman. She stated that she had always enjoyed good health till within this last three years, since which time she had suffered from "winter cough" and sore-throat. Twelve months ago, an eruption broke out on the arms and body, coincident with a very bad sore-throat and loss of voice. She was under treatment for the eruption; but it remained out four or six months, when it disappeared. She stoutly denied all primary sore. Eight days before admission, she went to bed feeling quite well, but was seized about seven in the morning with what she called "croup"—viz., wheezing inspiration. She had been attending as an out-patient; but, as she became worse, she was admitted.

On admission, she was a stout, healthy-looking woman. There were some patches of old partially faded psoriasis on the arms and chest, and a well marked chain of characteristic enlarged glands in the groin and down the posterior triangle of the neck. The breathing was extremely difficult, and accompanied by a wheezing inspiration; it was almost impossible in the supine posture. There was pain on pressure over the larynx, and mucous râles over both lungs posteriorly. The face was flushed; the skin hot and moist; the tongue furred; pulse 96; bowels open. A blister was applied to the sternum. A grain of calomel and a quarter of a grain of tartar emetic were ordered every three hours; beef-tea for diet.

November 4th. She continued much the same; had great difficulty in breathing, and considerable cough. She had not slept, and had been sick. There

was swelling of the throat externally. Pulse 96; bowels not open. The pills were ordered to be given every six hours; and ten grains of iodide of potassium in nitre draught every six hours.

November 6th. The breathing had become very considerably worse, and had assumed more of a spasmodic character. She had not slept at all. Pulse 112. She was ordered to take at night a quarter of a grain of extract of stramonium, and three grains of extract of hyoscyamus.

November 7th, 1 A.M. Breathing much worse; spasms more frequent, and much more severe in character; lips livid; face bedewed with perspiration; eyes bloodshot; nostrils dilated, and constant gasping efforts for breath; pulse very feeble. Laryngotomy having been determined upon, I performed the operation. There was some little difficulty, on account of the quantity of fat which had to be cut through, and the free hæmorrhage from the congested vessels; and, before the larynx could be opened, she had ceased to breathe, and the pulse had ceased to beat. As soon, however, as the cannula was introduced, artificial respiration was set up, and in a few minutes she began to breathe quietly through the tube, and soon fell into a placid sleep.

11 A.M. She had passed a quiet night, and had had no difficulty in breathing; expressed herself to be immensely relieved. Skin hot; pulse 130, full; respirations 35 in a minute; tongue white; bowels freely open. A cradle, covered with flannels wrung out in boiling water, was kept constantly over her neck; and the inner tube was frequently taken out and washed.

She went on well till the 10th, when her gums became sore. The breathing was perfectly easy; pulse 96. The pills were omitted; and she was ordered to take ten grains of chlorate of potash in nitre draught every six hours.

On the 17, she still continued comfortable, and was ordered a mutton-chop.

December 16th. A cork was placed in the tube; but she was unable to breathe with it for long. The throat was examined with the laryngoscope. There was found to be increased redness of the mucous membrane, with injection of the superficial vessels. There was great swelling of the superior vocal cords; so much so, that they approximated and met in the median line, entirely obstructing a view of the rima glottidis and true chordæ vocales.

December 22nd. She still had great difficulty in breathing, if any attempt was made to close the mouth of the tube. There was very little discharge, and no dysphagia. She could articulate freely by placing a finger on the tube; but the voice was hoarse, and often degenerated into a whisper. She was ordered a drachm of solution of bichloride of mercury and five grains of iodide of potassium in cinchona draught three times a day.

January 13, 1864. She had been going on well till this day, though there was still very little, if any, air taken in by the mouth. Laryngoscopic examination revealed much the same state of things as before, except that there was not quite so much congestion.

She was made an out-patient at her own request. She continued to attend for some time, and was then lost sight of till Oct. 31st, 1864, when she came to the hospital to show herself. She stated that, since she went out, she had enjoyed good health; and that she was as strong and well as ever she was; in fact, that she had married; but that she breathed entirely through the tube, "no air passing the natural way".

On examination by the laryngoscope, very extensive nodulated thickening was found filling up the whole of the larynx above the true vocal cords; it appeared to implicate the superior vocal cords. The

swelling was greatest on the right side; and the two sides did not quite approximate, but a narrow chink was left; so narrow, however, that nothing could be seen through it. A twenty-grain solution of nitrate of silver in an ounce of water was applied to the thickening, and has been repeated three times a week ever since. She was also ordered ten grains of iodide of potassium three times a day. There has been, however, no material improvement.

CASE II. John T., aged 28, labourer, was admitted January 27th, 1864, into Hope Ward, under Dr. Fuller. He stated that he had had a chancre twelve months previously, followed by secondary sore-throat and eruptions. Three months ago, he became very hoarse; but this symptom subsided after a time. For the last six weeks, he had suffered from loss of voice, pain in the larynx, and difficulty in swallowing. He had been under medical treatment, and improving till January 26th, when he was seized with a most urgent attack of dyspnoea and very severe pain in the throat.

On admission, there was an extremely anxious expression of countenance; pulse 80; burning hot skin; noisy respiration, and a peculiar barking cough. He was ordered salines and antimony.

Feb. 2nd. He continued much the same till this date. The breathing was extremely difficult and laboured. He had not slept for two or three nights.

About 11 p.m., the resident medical officer and myself were called to him, and found him evidently in a state of impending suffocation; the face was blue, and he was making violent efforts at forced respiration. I immediately performed laryngotomy; and so great was the relief that, before the tube could be tied in, he was in a sound sleep, in which he continued for five hours; he woke up easy and comfortable, with a full, frequent pulse and warm skin, and all anxiety of countenance gone.

He went on well after the operation. On January 15th, he began to breathe through the mouth; but could not be induced to allow the tube to be left out, as, when it was, he became nervous, and then had an attack of dyspnoea. He, however, went about with a cork in it.

The laryngoscope showed very considerable thickening of both true and false vocal cords, though there was still a large interspace left between the right and left cords, apparently quite sufficient for all ordinary purposes of breathing.

He was discharged April 20th, since which time he has been lost sight of. During the period he was in the hospital, he took the biniodide of mercury.

Syphilis appears to affect the larynx in three distinct ways. First, in the form of condyloma; and this is described by some authors as the commonest affection in the earlier stages. (Virchow's *Archiv f. Path., Anat., und Phys.*, vol. xxi, part i.) This form was well exemplified in a man recently under treatment as an out-patient at St. George's Hospital. He had had a chancre some nine months previously, of which some induration still remained, followed by secondary eruption and sore-throat; and he applied at the hospital for rupial ulcer, nocturnal pains in the shins, and considerable aphonia. On examining the larynx, several small, irregular, uneven growths, were found lying along both vocal cords, but principally the right, forming, as it were, a serrated margin along the free border of the cord. Under the use of large doses of iodide of potassium, he got considerably better, and recovered his voice somewhat; but was unfortunately lost sight of before he had entirely recovered, or before it had been ascertained whether the growths would disappear without local treatment.

Another form of syphilitic disease of the larynx is the form usually described in books under the name

of "syphilitic ulceration of the larynx." This form, however, of simple ulceration, without thickening, probably only exists as an extension backwards of ulceration of the palate. It is characterised by cough, difficulty in deglutition, huskiness of the voice, and expectoration of bloody, purulent matter, frequently very offensive. On examining the ulcers, which are situated, for the most part, about the rima glottidis, they will be found to present a peculiar character, their edges being puckered, and drawn into white, tense folds, radiating, as it were from the ulcer as a common centre, and resembling very much the cicatrix left by a common burn. This form of disease is commonly associated with extensive ulceration of the uvula, soft palate, and adjacent structures.

But by far the most common form of syphilitic disease for the larynx to assume, is that to which the two cases recorded above belong; viz., where there is a deposit of a fibro-plastic material in the sub-mucous areolar tissue, causing thickening as a primary affection; but, no doubt, sometimes terminating eventually in ulceration of the adjacent parts, probably from mal-nutrition, or from the local irritation of a foreign body. A good example of this form of disease, progressing to its final stage, and which terminated in death, occurred in St. George's Hospital about the same time as the above two cases.

CASE III. J. W., aged 46, discharged soldier, was admitted October 7th, 1863, under Mr. Pollock. (For a full report of this case, as well as a similar one, see *Trans. Path. Soc.*, vol. xv, page 36.)

He stated that he had had syphilis, followed by secondary syphilis, many years ago; but that he had been quite free from all disease, till twelve months ago, when he was an in-patient, with difficulty of breathing and hoarseness. He went out relieved; but the symptoms had returned a few weeks ago.

On admission, there was considerable difficulty in breathing, and he was unable to lie down; his voice was scarcely to be heard; and his face was dusky and anxious. There was no expectoration; no difficulty, but pain, in deglutition.

The evening after his admission, he suddenly jumped out of bed and rushed out of the ward, declaring he was suffocating. My colleague Mr. Maude, and myself, were immediately summoned; and we found him gasping and struggling for breath; the face having become blue and respiration being extremely rapid, inspiration being accompanied by a whistling noise, though very little air could be heard entering the lungs. Mr. Maude directly opened the larynx, with immediate relief. This relief continued; and, after about three weeks, he was able to breathe through the natural orifice. The cannula was removed, and the wound allowed to heal up. At this time, an examination was made with the laryngoscope; the epiglottis was found to be thickened, especially on the left side. There was considerable thickening and bulging about the false vocal cords and rima glottidis on both sides, so as partially to obscure the view of the true vocal cords; but on making him take a deep inspiration, they, to a certain extent, came into view, and appeared to be much thickened.

He was discharged November 14th.

He was seen again by myself on December 31st, about 10 p.m. He complained of pain in the epigastrium. His breathing was not difficult, nor his countenance dusky. Under these circumstances he was handed over to the resident medical officer, who ordered him some salines and antimony. According to the nurse's report, he slept comfortably all night and conversed with her about six, but upon her going to look at him about eight, he was found to be dead in his bed—having died without a sound sufficient to

arouse the attention of the nurse or the patient who lay in the next bed.

POST MORTEM EXAMINATION. When the glottis was inspected from above before the larynx was opened, it appeared that such was the tumidity of the parts above the cords that no orifice was apparent. This was due to a general condition of œdema, which reached from the inferior vocal cords to the base of the epiglottis; the swelling was greater in the latter than in the former situation. There was thickening of the epiglottis, especially towards its base, and one of its edges was irregularly twisted. The body of the cricoid cartilages was in a great part detached from the tissues in which it is imbedded. The upper and inner part was replaced by bone, and this bone retained its unions with the soft parts, though partially separated from the adjoining cartilage. The cartilaginous part of the structure which composed by far the greatest part of its bulk, was only detached laterally. In a vertical section a channel could be traced completely round it, dividing it posteriorly from the soft parts, anteriorly from the soft parts and its own osseous portion. In a horizontal direction the separation extended irregularly for rather more than an inch. It was incomplete, except opposite to the central part of the body.

The channel contained a small quantity of pus, which was most abundant at the upper part of the cartilage, and thence led, burrowing upwards, into a sort of sinus, which extended to a level with the superior vocal cords. The separated cartilage had a natural appearance on section. The submucous cellular tissue was thickened by deposit of lymph, especially that covering the superior vocal cords, so that these structures were much rounded and enlarged. The lungs were much congested, and there were old cicatrices at both apices. The kidneys were granular.

This case is recorded somewhat fully, since it exemplifies a later stage of the disease than the two preceding ones, and a stage to which, for the most part, all these cases come, unless the disease be arrested by appropriate remedies, namely, necrosis of the laryngeal cartilages. In fact, observation seems to prove that many cases of disease of the cartilages of the larynx, attributed to so-called laryngeal phthisis, would, if accurately investigated, prove to be cases of fibro-plastic deposit due to the syphilitic virus.

Of the various cartilages the cricoid appears to be much the most frequently diseased, and of this the posterior segment, either in part or the whole. If the patient's life be prolonged, the cartilage, once necrosed, sets up irritation, followed by inflammation and suppuration; the matter formed may either point and burst internally and form a fistulous opening through which necrosed portions of cartilage may be coughed up, or it may undermine the tissues of the neck, pointing externally. When these two conditions occur conjointly, they give rise to aerial fistula—bubbles of air escaping during respiration.

RUSSIAN STUDENTS. The Russian government makes great efforts to obtain well trained medical men for civil and military appointments, and with this view sends many young Russians to study in foreign universities at the expense of the Empire. At Giessen there were last summer six such students studying zoology under Leuckart. There are so many now distributed over the German universities, that they require a special inspector, and with this office M. Pirogoff, the well known surgeon and author of the *Anatomy in Sections*, has been burdened. M. Pirogoff visited Berlin last summer to pass his special clients in review.

Original Communications.

THREE CASES OF OVARIAN DISEASE TREATED BY OVARIOTOMY.

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THE pathological specimens of two of the following cases, with others from the hospital museum, formed the groundwork of a paper read before the West Somerset Branch of the Association in the early part of the present year. I now submit the details of those cases, with the particulars of another which has since fallen under treatment.

CASE I. *Multilocular Ovarian Tumour, Nine Years' Duration: Ovariectomy: Death Sixty-six Hours afterwards: Tumour Twenty-three Pounds in Weight.* Mary M., aged 37, married, was admitted into the Taunton and Somerset Hospital, under the care of Dr. Kelly and Mr. W. Liddon. She had twins fourteen years previously, but had not since been pregnant. The catamenia were regular. The tumour was first noticed nine years ago.

On admission (November 29th, 1862), her complexion was pale, her hair red. She had little flesh. The abdomen was much distended, especially below the umbilicus; the circumference at the latter point was 40½ inches. A liberal diet and iron and quinine were ordered.

The diagnosis was, a multilocular ovarian cyst, with solid and fluid contents; the former much in excess; without adhesions, and accompanied with ascites.

Early in January 1863, the general health had much improved; and the patient was very desirous that an operation should be performed. After a consultation of the medical staff, ovariectomy was decided upon; and on January 29th, 1863, she was placed under chloroform by Dr. Kelly. The bladder having been emptied, an incision extending downwards from the umbilicus was made, and the surface of the tumour exposed; a large quantity of ascitic fluid escaping. Spencer Wells's trocar was introduced three or four times, but with little effect. The wound was therefore lengthened to four inches above the umbilicus, and the tumour easily tilted out. One large adhesion existed between the omentum and upper part of the tumour. The pedicle was rather short, and connected with the right ovary. After being transfixed with a double ligature, and tied, it was secured externally by Spencer Wells's clamp. The omental adhesion contained such large vessels, that it was secured in two portions, and retained externally at the upper end of the wound, as the pedicle was at the lower. The wound was closed by hare-lip pins and strapping.

The operation was well borne. On her recovery from the chloroform, forty drops of Battley's sedative solution were given.

January 30th. The bladder was relieved by the catheter. Pulse 108. There had been considerable oozing from the wound, apparently of ascitic fluid.

January 31st. The patient had a violent rigor. Pulse 150.

In spite of brandy and beef-tea injections, etc., she died on February 1st, sixty-six hours after the operation.

POST MORTEM EXAMINATION, thirty hours after death. The abdomen was much distended with gas. The wound was healed, save where the omentum and