reported, notably those by Burow, of syphilitic infection, which have been directly traced to catheterism, and it is easy to understand how suppurative inflammations might be communicated from patient to patient in a similar way. I trust this little apparatus may prove as useful to all aural surgeons as it has to me.

CLINICAL NOTES.

From the Clinic of Dr. NORRIS WOLFENDEN, The Throat Hospital, Golden Square, London.[1]

Case I. : *Bilateral Abductor Paralysis, large Aneurism*; *Tracheotomy*; *subsequent Death.*

The patient, T. P., a man aged forty, a printer, first attended as an out-patient on March 22nd, 1892. On sitting in the examination chair, it was obvious that the patient was suffering considerable difficulty of breathing. The face was dusky, the expression anxious, and there was obvious stridor. In the patient's condition it was difficult to get any history of the disorder. It was elicited, however, that he had been under treatment two years previously for "chronic laryngitis." The radial pulse in the right arm was nearly absent, and a suspicion was thereby aroused of aneurism. The condition of the larynx, however, led me to its immediate examination without loss of time in questioning as to history. With some little difficulty, owing to the patient's anxiety and nervousness, and also to the fact that introduction of the mirror into the pharynx tended to produce an attack of suffocation—it was elicited that he had latterly had many attacks of suffocation lasting for half-an-hour at a time, and chiefly in the mornings on rising—a thorough examination of the larynx was made, and it was found that the epiglottis and ventricular bands were congested and a little thickened ; the latter, however, not so much as to hide the vocal cords. There was no thickening of the posterior wall of the larynx, or about the arytenoids. There was abductor paralysis of *both* vocal cords, *i.e.*, the cords lay approximated nearly in the mid line, with a narrow glottic chink, and which on attempts at phonation they approached still further ; on efforts at inspiration the right cord did not separate at all. This cord lay a little nearer the median line than its fellow. On attempts at deep inspirations both cords showed a slight movement towards the median line. While still under examination a suffocative attack came on, and the patient begged to be allowed to retire into the ante-room. The attack persisted, commencing with short inspiratory gasps accompanied with marked stridor, ending in cyanosis, failing pulse, and the patient began to lose consciousness. It was deemed advisable to at once perform tracheotomy, and this was efficiently done by the resident medical officer, Mr. Sharman. Owing to a large plexus of veins, a large amount of hæmorrhage occurred, which was with difficulty controlled by Spencer Wells forceps and ligature of the larger

[1] From Notes supplied by Dr. Sharman, Resident Medical Officer.

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vessels. Cyanosis diminished, however, and consciousness returned, but it was not deemed advisable to open the trachea until the hæmorrhage was so far controlled that there was little danger of blood passing into the windpipe. The insertion of the tube was, however, followed by the sucking of some blood into the trachea, but this was at once expelled by coughing. A pad of eucalyptus gauze packed into the wound beneath the tube arrested any further bleeding. The patient rallied fairly well after the operation (which was performed at 2.45), and was carried to the ward and put to bed. A large papulo-squamous rash was then noticed about the neck, shoulders, and back, and there were patches of scarring of the skin. At half-past six the patient was breathing fairly comfortably, but had coughed a good deal of blood out of the tube. The wound was found to be practically dry, but a fresh piece of gauze was packed into it, after well dusting it with iodoform. Being restless, a hypodermic injection of one-fifth of a grain of morphia was given.

March 23rd, 10 a.m. Patient had passed a good night and was breathing fairly comfortably, but there was some rattling of mucus in the tube. Temperature was normal. The gauze was removed from the wound ; this was well dusted with iodoform, and the edges were brought together by strapping. A few crepitations were discovered at the bases of both lungs, with inspiration, but auscultation was difficult owing to the conduction of sounds from the tracheotomy tube. There was no dulness. The radial pulse was almost quite absent on the right side, and patient stated that this condition had been noticed twelve months before, when he came to the hospital previously.

The urine examined was of specific gravity 1076, loaded with urates, and albumen and sugar were absent. He was ordered ten grains of iodide of potassium three times daily, with a teaspoonful of the linctus glycerini occasionally to relieve cough. During the day the patient was able to sit up in bed and to talk by closing the tube with his finger. He took fluid nourishment during the day, but complained towards evening of a little difficulty in swallowing. During the day, his wife was seen, and said that during the previous six or seven weeks the patient had had many severe suffocative attacks, during which he became blue in the face "after fighting for his breath," and sometimes passed his urine and fæces involuntarily. At 8.30 p.m., being somewhat restless and sleepless, ℞ ℥ ii. solution of morphine (B.P.), or one-fifth of a grain, were administered. Temperature 100·2°.

About midnight the patient had a sudden very severe attack of suffocation, becoming deeply cyanosed, the veins becoming distended, unconsciousness supervened, conjunctival reflexes were abolished, and there was involuntary passage of urine. The patient seemed to be *in articulo mortis*, the pulse was hard and quick. Venesection (median basilic vein) was performed, and with the removal of several ounces of blood the cyanosis diminished, and respiration improved. The whole body was bathed in profuse sweat. There was some return of consciousness, and conjunctival reflex could be obtained. The tracheotomy tube was carefully examined, and nothing wrong could be discovered with it ; a feather was passed through it well down the trachea, and was followed

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by a little cough, but there was no satisfactory expectoration. The patient's respiration improved a little, but consciousness never properly returned, and he died at 2.30 a.m. (March 24th).

An *autopsy* was made 16½ hours after death. A considerable layer of subcutaneous fat existed ; the liver, kidneys, and heart were rather greasy on section, and a star-shaped cicatrix was found on the capsule of the liver. The upper part of the mediastinum was occupied with a large sacculated aneurism, involving the whole of the ascending and transverse portions of the aortic arch, and also the trunk of the innominate artery. The right carotid and right subclavian arteries (small and flattened) sprang from the upper and right hand portion of the aneurismal tumour. There was a great deposit of fibrinous clot in a hard mass in this portion of the aneurismal sac. Well-marked atheromatous patches were present just above the aortic valves, and also in the descending aorta. On the posterior surface of the aneurism near the right carotid and subclavian arteries a flattened nerve was found (? the right recurrent laryngeal). The trachea was pressed upon posteriorly by the mass and a little flattened. Lungs congested, with a few small areas of collapse at the base. No pneumonia. Kidneys congested, but otherwise not abnormal.

Remarks.—The short time allowed for examination of the patient during life, and the necessity for immediate measures of relief to the laryngeal stenosis, prevented a minute examination of the chest being made, auscultation being rendered very difficult also by the unnatural sounds due to stridor and tracheal *râles*. It was singular how few cardiac signs existed ; there being no thrill, or, so far as could be elicited in the brief examination possible, abnormal cardiac sounds. The pressure upon the laryngeal nerves, and the condition of the radial pulse, with so far as could be determined an area of dulness over the upper and right side of the sternum, warranted a diagnosis of aneurism during life.

On the right side the recurrent laryngeal was completely pressed upon, and the vagus was also probably somewhat compressed. The large size of the aneurism and dilation of the arch rendered it likely that the left recurrent laryngeal nerve was also somewhat compressed, but all the parts were so matted together that it was exceedingly difficult to clearly make out the anatomical relation of the nerves.

Case II. : *Bilateral Paralysis of the Abductors of Probable Central Origin—Tracheotomy.*

The patient, a man, aged thirty-five, a labourer, applied at the Throat Hospital on April 12th, 1892, for a certain amount of difficulty of breathing, especially at night time, and occasional attacks of suffocation. An examination of the larynx with the laryngoscope showed the vocal cords to lie quite close together, leaving a very narrow glottic chink, rather broader posteriorly ; the cords moved a little nearer together on deep inspiration, and approximated completely on phonation. The larynx was free from swelling of any portion of its tissues, the vocal cords being very slightly reddened. There was absolutely no attempt at abduction on inspiration ; there was a little stridor on inspiration, but what was very remarkable was the apparent calm of the patient, and the absolute

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freedom from urgent dyspnœa, such as one might reasonably have expected with such a narrowed glottic space. As it was considered that tracheotomy might at any moment be called for, he was at once taken into the hospital, and the following notes of the case were then taken by Dr. Permewan :—

April 13th. Patient first felt the throat trouble about three months ago, when he was much exposed to cold in his work. It began with soreness and pain in the throat, and hoarseness of voice, as also with difficulty in *swallowing*, which lasted a month. The *difficulty of breathing* came on in two days from the beginning, and has continued ever since ; from time to time this has been intensified into suffocative attacks, of which he has had five or six, but none later than seven weeks ago.

Cough.—Has been troublesome for the past two months, and several times, when more than ordinarily severe, he has brought up a little blood.

Twelve years ago patient had syphilis, followed by secondary symptoms ; he was treated for this, and for the last eleven years has had no trouble from it. Patient had rheumatic fever badly at the age of nine, and since then has had one or two slighter attacks. For the last four weeks he has felt a numbness in the right side of the face, particularly in the right side of the mouth, where, as he says, he is unable to feel if his pipe is in his mouth or not.

Present condition :

Circulatory system. — Heart : No enlargement, sounds natural, Arteries : Somewhat degenerated. Pulse : 90. There is no abnormal pulsation to be felt in the neck or chest, and no bruits can be detected.

Respiratory system.—No dulness over chest. Breath sounds weak, mostly masked by the laryngeal stridor.

Nervous system.—Brain : No headache ; sleeps fairly well. Cranial nerves : (1) Smell normal on both sides ; (2) Complains of sight being poor in both eyes ; in left eye this came on fifteen years ago ; in the right, two months ago. Right eye : marked choroiditis, pigmentation and atrophy of choroid. Left eye : the edge of optic disc rather irregular ; (3) (4) (6) Movement of both eyes apparently normal ; (5) (7) There is marked asymmetry of the face ; the right side is smoother than the left, and the naso-labial fold is very faint on the right side. There is numbness and impaired sensation over the inner half of the right side of the face, corresponding to the supra-orbital, infra-orbital, and mental branches of the V nerve. There is excoriation about the right nostril, and patient complains that the right side of the nose is chronically inflamed. The right eye also becomes easily inflamed. There appears to be wasting of the muscles of the right side of face. The mouth is drawn up more on the left than the right, but voluntary movement of the muscles seems normal ; (8) Watch = five inches left ; — contact right ; tuning-fork inaudible at left meatus ; heard over left mastoid ; both M T indrawn, especially the right ; (9) No numbness of tongue or palate ; (10) and (11) *Vide* laryngeal condition *supra* ; no dysphagia ; (12) Normal.

Spinal cord.—No paralysis or anæsthesia of spinal nerves ; reflexes normal.

He was put upon antispecific treatment (pot. iod., gr. xx., t.d.s.).

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April 14th. The abductor paralysis is just as great; cords do not separate on deep inspiration. There is not such marked stridor as before; phonation quite good; keeps well without suffocative paroxysms; respiration easy; no dysphagia.

April 24th. P. is in much the same condition. No increase of symptoms. Think the glottic chink a little more open; sleeps well; stridor (inspiratory) during sleep; walks well; no affection of gait; no loss or increase of patellar reflex, and no ankle clonus. There is a little weakness over bladder, some micturition occurring involuntarily when coughing sometimes.

April 27th. There is a good deal of incontinence of urine at night. Both pupils react very sluggishly to light, especially the left, which can only just be seen to react. To accommodation both react also sluggishly, the right perhaps rather more sluggishly than the left.

May 20th. Abductor paralysis still persists, but is a little less than formerly, a slight opening seen in glottis, but cords approximate on forced inspiration. Deafness better and incontinence better. Has no dyspnœic attacks. The anæsthesia of face is a little better.

Feeling fairly well, and being anxious to get to his home, he was allowed to leave the hospital under promise that the moment he felt any increased dyspnœa he would return, when it would be necessary to do tracheotomy.

On May 31st he came back, stating that since his discharge he has been getting worse, and that at night time he has had four and sometimes five bad attacks of dyspnœa, feeling choked, and getting black in the face. The condition as regards the larynx was just the same as before, namely, complete paralysis of the abductors, but there was less anæsthesia of the right side of the face. There was no headache, but some tenderness on pressure over the right occipital region, and the neck felt slightly stiff. He had some degree of bronchial catarrh. It was deemed advisable to open the trachea, as the laryngeal symptoms did not yield in the least to full doses of iodide of potassium, and tracheotomy was accordingly performed on June 1st. Since that time up to the present the patient has been apparently comfortable, and a cough he had at the time of operation has since passed off. The condition of the larynx remains just the same, and will probably always do so.

DIPHTHERIA AND THERAPEUTICS.

Stein (Saaz-in-Böhmen).—*Therapy of Diphtheria.* "Thüringische Monats.," 1892, No. 4.

RECOMMENDATION of insufflations of sulphur and quinine. *Michael.*

Kahn (Würzburg).—*Results of Treatment with Cantharidinum.* "Therap. Monats.," 1892, No. 5.

NO effect by subcutaneous injections in cases of tuberculosis of the

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