SOCIETIES' PROCEEDINGS

ROYAL SOCIETY OF MEDICINE—SECTION OF LARYNGOLOGY.

March 4, 1927.

President—ANDREW WYLIE, M.D.

The Pathology of Œsophagectasia (Dilatation of the Œsophagus without Anatomical Stenosis at the Cardiac Orifice).—IRWIN MOORE, M.B.

The Paper is published in the *Journal of Laryngology and Otology*, vol. xlii., September 1927, p. 577.

Congenital Bilateral Occlusion of the Posterior Choanæ. HERBERT TILLEY, F.R.C.S.—Female, aged 5, had complete nasal obstruction noticed at birth; it caused much trouble for a week owing to "attacks of suffocation." Discharge occurred from each ear when eight or nine months old; this lasted more than two months and then ceased without causing any deafness.

10th October 1926.—Complete absence of nasal respiration existed; nasal cavities were filled with mucus. Each posterior naris was completely occluded by a diaphragm which had a membranous centre and bony circumference. The former was perforated by firm pressure with a blunt probe.

14th October.—Under general anæsthesia, the membranous portions of each diaphragm and also a considerable mass of adenoids were removed by sphenoidal punch forceps.

For a week afterwards fair nasal respiration was possible, but gradually the obstruction increased in spite of daily applications of $AgNO_3$, 1 dr. to 1 oz. Therefore, on 9th December, I removed the posterior edge of the vomer with a small chisel and forceps, so as to cut away the inner circumferences of the bony portion of the diaphragms. Instrumentation was guided by the left forefinger in the nasopharynx. The child has now perfectly free nasal respiration and sleeps with closed mouth.

There is a general lack of development in this patient in striking contrast with the development of her sister, who is a year older.

Mr A. J. WRIGHT said that, at the Glasgow Meeting of the British Medical Association, he had read a short paper dealing with this condition in two sisters who had reached the ages of 10 and 13 respectively when the operation was performed. The point he had emphasised was the extremely good development of the patients.

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Mr T. B. LAYTON said that apparently this child had never breathed through her nose, yet the arch of her palate was perfectly developed. This was one of the many pieces of evidence that the so-called typical "adenoid facies" had nothing to do with adenoids.

Mr TILLEY (in reply) said that at the first operation only the membranous portions of the diaphragms were broken down. The patient progressed very well for several days, but granulations formed and obstruction recurred. At the second operation the posterior margin of the vomer was removed. The condition was a rare one in a child. The fact that the child had not previously breathed through her nose might partially account for the lack of development as well as for the apparently senile appearance.

Growth on Palate: Diagnosis and Treatment—H. BELL TAWSE, F.R.C.S.—Female, aged 35, ten years ago noticed a fleshy-looking lump on the roof of the mouth. It caused her no trouble then, nor has it done so since. She is anxious to have a denture fitted, but the dentist refuses to make one until I give permission. The mass feels firm and fibrous and has enlarged since I saw it two years ago. Just above it there is a slight defect of the hard palate, and both the hard and the soft palates in this locality have a nævoid appearance.

Suggestions are asked for as to diagnosis, treatment, and the wisdom of having a denture fitted.

Wassermann reaction negative.

Mr TILLEY suggested placing a small quantity of radium in the swelling. An attempt at removal of the growth would probably result in perforation of the palate, which would be a more troublesome condition than the present one. But before adopting any treatment the speaker advised the exhibitor to read the monograph by the late Mr Stephen Paget on "Tumours of the Soft Palate," describing adenomata of the palate as well as other new growths.

Mr RIDOUT suggested that a portion of the growth should be removed for microscopical examination; ideas as to treatment could be formed more satisfactorily afterwards.

Mr R. A. WORTHINGTON said that when he had removed the soft palate in adults, he had been surprised to find how little inconvenience had resulted from the procedure. There had been practically no interference with speech, and shortly after the operation there had been no trouble in swallowing. If the tumour were removed in this case and a denture fitted, he did not anticipate any inconvenience to the patient.

Sir WILLIAM MILLIGAN said that as this growth was not giving trouble it should be left alone, and he did not see why the patient should not have a denture; it could be so made as to go round the growth. The growth might be a fibro-adenoma.

Mr BELL TAWSE (in reply) said that he had intentionally omitted to remove a piece for examination, as he wished to hear the opinions of members. He would remove a piece—which he thought could be done without danger—and report the examination of it to the next meeting. His

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view was that it was a dermoid; there was much nævoid tissue in the vicinity. It might be a parotid tumour, and if cartilage were found inside it he would not feel surprised. Perforation was very likely to follow removal by operation, and in these cases his experience was that the fitting of a denture in such a way as to prevent food getting between the palate and the denture was almost impossible.

Styloid Process projecting into the Left Tonsil—H. BELL TAWSE, F.R.C.S.—Female, aged 42, has septic tonsils, which at times are inflamed. On one occasion, having a sharp pain in the left tonsil, she put her finger in and felt a hard projection. A similar one could not be detected on the other side, so she examined the projection several times daily and soon concluded that it was getting bigger and was probably a cancer.

The left styloid process appears to have been fractured. Was this an accident?

On the right side this process is longer than normal.

Mr A. J. WRIGHT said he regarded this as a clinical entity. A styloid process projecting into the tonsil produced symptoms. He had operated upon two such cases. One patient had refused operation for a similar condition in which the styloid process could be felt.

Mr DOUGLAS GUTHRIE demonstrated on the epidiascope a number of slides of elongated styloid processes in men and animals.

Foreign Body (nut) in the Bronchus: Skiagrams of Chest shown—A. J. WRIGHT, F.R.C.S.—A female child, aged 2 years, was admitted to the medical wards as a case of suspected laryngeal diphtheria. Some stridor was said to be present, but the patient was afebrile and the pharynx was normal. After a fortnight a swinging temperature developed. When first seen by me, nearly four weeks after admission, the child was very ill, with much general toxæmia. An asthmatoid wheeze was present and the base of the right lung showed consolidation, with absence of breath sounds; the heart was displaced to the right side. The apex of the right lung, and the whole of the left lung, showed signs of emphysema. The diagnosis made was that of bronchial obstruction, probably by a vegetable foreign body. Bronchoscopy was performed with a 4 mm. tube, without an anæsthetic. The larynx was inflamed and, directly the tube entered the right main bronchus, several drachms of pus gushed out. As it was impossible to clear the bronchoscope, it was removed, and a fragment of nut was found impacted in its end. Recovery was uneventful.

The three skiagrams show the condition before the removal of the foreign body and two stages of resolution in the lung afterwards. The case typically illustrates an unrecognised organic foreign body in a bronchus, and also shows how rapid and complete resolution may be, even after five weeks of severe sepsis in the lung.

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I also show a skiagram of another case, which illustrates the fact that foreign bodies are not always discovered at first. The child in this case was brought to hospital with a very clear history of inhalation. She was sucking a pencil, when she took a deep breath and the pencil disappeared. The first skiagram taken had shown nothing, but the second disclosed the very faint lines indicated, due to the pencil being on edge. There was no particular difficulty in getting it out.

Sir WILLIAM MILLIGAN said these cases were very dangerous; they were very apt to result in septic broncho-pneumonia. He (the speaker) had once removed a lentil bean from a bronchus in which it had been lodged for ten days. He thought he had removed the bean entirely, but the temperature did not fall, and death ultimately took place. The post-mortem examination disclosed a very small portion of the husk of the bean, which had become detached and which apparently had been responsible for the septic pneumonia. When the foreign body was soft and pultaceous, it was very important not to use forceps with sharp prongs for its extraction. The best kind was a sort of midwifery forceps on a very small scale, which enabled the foreign body to be grasped without causing laceration.

Mr F. B. GILHESPY said that in taking a skiagram it was advisable to use lipiodol, which would show up the bronchial tree, also, perhaps, the foreign body.

Mr M. VLASTO said that some years ago he had had a case almost identical with the one mentioned by Mr Wright. A child had been admitted to hospital with physical signs of an inflammatory affection of the left lung. For many weeks there was a hectic temperature and a marked leucocytosis. No history could be obtained of aspiration of a foreign body, and radiography did not support such a diagnosis.

I examined the child by the bronchoscope; he was then extremely emaciated and almost moribund. When the distal end of the bronchoscope was introduced into the left bronchus a pultaceous mass was encountered which was coughed up through the lumen of the tube together with a gush of fœtid pus. Dr Sidney Owen, who was auscultating the chest, stated that he then heard breath sounds entering the left lung, and advised me to desist from further examination in view of the child's precarious condition.

Recovery was rapid and complete. It was remarkable to note the rapidity in the fall of the temperature, and in the degree of the leucocytosis.

Dr IRWIN MOORE said that he had designed a pair of forceps, five years ago, of the kind Sir William Milligan advised for use in these cases.

Nodular Laryngitis treated by Galvano-cautery—Sir JAMES DUNDAS-GRANT, K.B.E., F.R.C.S.—Female, aged 42, mother of a large family, was first seen in September 1925, complaining of hoarseness and "a feeling of something in her throat." She was in great anxiety as to the possibility of this being cancer. I found a small œdematous swelling on the edge of the left vocal cord at the junction of the

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anterior and middle thirds. There was at the same time chronic rhinitis with pseudo-papillomatous swelling of the left inferior turbinated body. She attended hospital from time to time without any material diminution of the hoarseness until I applied a fine galvano-cautery point to the outgrowth, when the voice soon recovered the present considerable degree of clearness. The vocal cord is slightly thickened but perfectly smooth.

Laryngeal Case for Diagnosis—C. A. S. RIDOUT, M.S.—Male, aged 59, gave a history of hoarseness since August 1926, followed by periods of improvement, but worse during last few weeks; first seen 9th February 1927.

Laryngeal Appearance.—Right cord much thickened; movements limited; a definite prominence noticed over processus vocalis of right arytenoid. Below the anterior end of the left cord is a subglottic swelling, small but definite.

A small fragment, obtained with difficulty from the right cord, showed considerable keratinisation of epithelium but no evidence of active changes.

The opinion of the Section is requested both as to diagnosis and treatment.

Epithelioma of Left Vocal Cord — L. GRAHAM BROWN, F.R.C.S.—Male, aged 57, was seen on 17th August 1926, with a history of hoarseness for four months.

The growth was ulcerated, small, circumscribed, and situated about the middle third of the left cord. The cords were freely movable.

Operation, 25th August 1926. Intratracheal ether, without a preliminary tracheotomy tube, was employed. A large window resection of the cartilage of the left thyroid ala was made, the growth and a large portion of the mucosa being removed. The wound was completely sutured at the close of the operation.

Pathological report: Epithelioma.

The patient made an uninterrupted recovery, could swallow fluids on the second day; his temperature was normal after the first twenty-six hours and the wound healed by first intention; he left hospital a week later. Shown for the purpose of hearing opinions about the advisability of the routine use of a preliminary tracheotomy.

Case for Diagnosis — H. LAWSON WHALE, F.R.C.S. — Male, aged 45, had a gunshot wound in the mouth during the late war; he says this involved only the tongue. Denies syphilis; family is healthy. For one year he has had a swelling on the left side of the neck; dysphagia and dysphonia for two months.

Velum palati short; uvula absent; slough on lower pole of left tonsil; right posterior pillar is absent, or represented by a mass simulat-

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ing the upper pole of the tonsil. On left side, posterior pillar is hypertrophied, ending freely below in a pedunculated mass.

Left submaxillary lymphatic gland palpable. The larynx is concealed by epiglottis which is notched, red, fleshy and amorphous.

Wassermann result is not yet available.

Ulceration of Left Vocal Cord—W. H. JEWELL, M.D.—Male, aged 48, has huskiness of six months' duration; no cough; very slight expectoration; Wassermann reaction negative. The right vocal cord is active in movement and thickened and the epithelium is proliferated and macerated. The left vocal cord is ulcerated and at times there is some impairment of movement.

Laryngeal Case for Diagnosis—M. VLASTO, F.R.C.S.—Male, aged 30, has occasionally had huskiness of the voice since the war. For the past year he has been definitely hoarse, and the hoarseness is increasing.

Wassermann reaction is negative; lungs are reported clear. Examination of the larynx showed both cords moving well; the right vocal cord was thickened irregularly; no definite ulceration was seen.

15th February 1927.—A piece of the right vocal cord was removed by the direct method through Haslinger's directoscope.

Discussion on the Cases of Mr Ridout, Mr Graham Brown, Mr Jewell, and Mr Vlasto.

Mr C. S. RIDOUT said that in his case he had removed a further fragment, which proved the growth to be epithelioma; he asked whether the operation indicated was laryngofissure or complete laryngectomy.

Sir ST CLAIR THOMSON said that in Mr Ridout's case the diagnosis was settled by the microscope, but even without that confirmation members would have noticed the impaired movement of the right cord. Yet the right cord, though thickened, was not very much involved. It was, however, sluggish in movement, and this afforded the valuable information that the growth had extended further than the surface of the cord. It did not reach to the attached border of the cord; it was rather in the subglottic region. As his (the speaker's) own figures showed, cases with the cord more or less fixed were not favourable. The growth extended across to the undersurface of the opposite cord, though the cord itself was not invaded. The growth might spread round the anterior commissure to the opposite side without involving the surface of the opposite cord. He feared that in Mr Ridout's case the condition was too far advanced for laryngofissure. The only chance of success was by complete laryngectomy.

With regard to Mr Graham Brown's case, one was rather at a disadvantage because the exhibitor had not said what advantages he claimed for his method of dealing with these cases. The case certainly showed that the operation could be done from the side, and without a tracheotomy. But a few odd cases of this kind did not help to establish a principle. Malignant disease of the endolarynx had even been cured by removal

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through the mouth. He had himself had such a case, and Lynch of New Orleans had published records of nine cases, in five of which the patients had been alive without recurrence of the growth at periods of from two to five years afterwards.* Yet no one who had had experience of laryngofissure would dream of recommending a patient to have a radical operation attempted through the mouth. With regard to so-called "window" resection: in that operation the first principle in the surgery of malignant disease was neglected, viz., that of free exposure, so that the surgeon could first see the full extent of the disease and plan his procedure accordingly. The "window" operation also deprived the surgeon of the valuable aid of touch. In the next room was a case which might be tubercle, or might be malignant. In the laryngofissure operation the diagnosis might be settled by using the finger, since malignant disease of the larynx was firm to the touch, whereas tubercle was soft and gelatinous. He (the speaker) had made one mistake in such a case, and had published a report of the case.

With regard to tracheotomy: why should not that be performed? It was quite simple, and it fulfilled the great surgical principle of doing everything for the safety of the patient.

Mr Graham Brown's result was excellent, but evidently he had not met with hæmorrhage which might occur unexpectedly during the operation, just at the end, or a few hours afterwards. The blood might pass downwards and do harm before a tracheotomy could be performed. Tucker, in Chevalier Jackson's Clinic, had done fifteen laryngofissures without tracheotomy; but in two he had to perform tracheotomy in haste, and it had also been necessary to plug the larynx, which was a very bad thing for the larynx. One patient had died within a week, and in the other such diffuse granulation tissue had been produced by the operation that the tracheotomy tube had to be put back two months afterwards. It was a method not to be encouraged. In laryngofissure a constant danger—and the only one—was the descent of blood. In the early cases done forty years ago the patients had nearly all died because there had been no provision against this occurrence. Bleeding might occur when it was least expected, and if there was not a tracheotomy tube *in situ* the patient's life would be lost from this cause. Until every operator published all his statistics, it would not be known how many of such cases occurred. Since Sir Felix Semon's time, the only complete statistics on the matter which had been published in this country were those of Mr J. S. Fraser of Edinburgh and his (the speaker's) own. He had placed records of all his results fully and freely at the disposal of his colleagues.

Mr T. B. LAYTON drew attention to the fact that in two of these cases microscopical examination had been made of pieces removed and in neither case did it give any help.

Mr R. A. WORTHINGTON said that after having done several laryngofissures, he had at one time believed that "window" resection was possibly a better method. Since he had come to this conclusion, however, two of his patients had been operated upon by the "window" resection method, and in both cases fistulæ had developed afterwards, an occurrence which had somewhat prejudiced him against the method.

* *Trans. Amer. Laryng. Assoc.*, 1920, xliii., 119.

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Mr TILLEY said he considered that in both Mr Jewell's and Mr Vlasto's cases the growths were epithelioma.

Sir WILLIAM MILLIGAN said that two important questions were: (1) Should "window" resection be done at all? (2) Should tracheotomy be done? The second question had been discussed fully by the Section a year or two ago, and the opinion of members had been divided. His own view was that tracheotomy should always be done, as it was a great safeguard, even although it might not be actually necessary in every case.

"Window" resection departed from the ordinary canons of surgery, for if there was one thing desirable in dealing with malignant disease it was to expose the growth, and he had never been satisfied with the view afforded by "window" resection, and if hæmorrhage occurred its control was very difficult.

Mr GRAHAM BROWN, in reply, said that his reason for showing this case was that it was an isolated one of epithelioma, in which he had obtained a very careful and full view of the growth, and had determined that as it was so small it could be removed in a certain way. At the operation he had had an intratracheal anæsthetic administered very efficiently, the tube being passed well below the growth. He had had experience in "window" resection, and decided to proceed in that manner. He took a large piece of cartilage away, thinking it would be better to do that than carry out a laryngofissure. His operation practically meant the whole thyroid being divided, leaving an arch to retain the framework of the larynx. There had been very little hæmorrhage; a small vessel had bled in the arytenoid region, but he was able to ligature it. As progress had seemed to be quite favourable, he had decided to close the wound entirely, with the result described.

Mr HAROLD BARWELL said that the more he saw of these interesting lesions on the vocal cords the more diffident he felt about making a diagnosis; in Mr Jewell's and Mr Vlasto's cases it was difficult to make a "snap" diagnosis, when one had only a short time in which to examine. His own impression was that both were tuberculous. There was reason for some contrary suspicion in Mr Jewell's case, but the opposite cord seemed to be considerably further involved than he (the speaker) would expect to find in the case of a new growth.

Mr JEWELL (in reply) said he was inclined to accept Sir St Clair Thomson's opinion; he would have a skiagram taken. He thought the case would probably prove to be malignant rather than tuberculous, considering the rapid destruction of the cord during the past three weeks without any constitutional disturbance, the sputum being negative for tuberculosis, and the fact that a physician had been unable to find any evidence of tuberculosis in the lungs.

Mr VLASTO (in reply) said that Dr Elworthy had made a careful examination of the microscopical section in his (the speaker's) case and had reported the condition to be one of carcinoma. He (Mr Vlasto) would therefore perform laryngofissure.

Œsophageal Speculum with Distal and Proximal Illumination—WALTER HOWARTH, F.R.C.S.—This short tube has been found

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very useful in dealing with foreign bodies in the deep pharynx and upper end of the œsophagus, and also for the delimitation of growths in this region. The additional proximal illumination has been fitted to my other œsophagoscopes, which are also shown. It is simply an adaptation of the Haslinger light.

A Pair of Hæmostatic Clamp Forceps used in Enucleation of Tonsils—L. GRAHAM BROWN, F.R.C.S.—Three patients recently operated upon by the above method were exhibited to show the present condition of their faucial pillars and tonsillar fossæ.

Post-Cricoid Dysphagia with Gastric Symptoms—DAN MCKENZIE, M.D.—For the last six or eight months the patient, a man, aged 36, has had difficulty in swallowing, together with the sensation of a lump in the throat and tightness, all referred to the post-cricoid level. In swallowing solids, the efforts made resemble those present in post-cricoid obstruction. There is, however, no cough or spluttering with liquids; food has never been regurgitated. It is noteworthy that salivation was profuse at one period of the history, particularly at night.

On laryngoscopy, some salivary accumulation was noticeable behind the left arytenoid, but the direct tube was passed down the œsophagus without any difficulty, and no change in the mucosa was discovered.

Since first coming under our observation the patient has also been examined at the Royal Free Hospital and elsewhere, and the conclusion arrived at is that he is suffering from hyperchlorhydia and perhaps also from duodenal ulcer.

Chronic Catarrhal Antral Inflammation—L. GRAHAM BROWN, F.R.C.S.—Boy, aged 11, was first seen on 4th January 1927, with an apparent swelling over the right side of the nose and superior maxilla, stated to have been increasing during the previous three weeks. It is very slightly tender on pressure, with skin somewhat reddened over it. The right nasal fossa is completely occluded by swelling of the mucosa. The left nasal chamber is patent. Transillumination of the antra showed the right side as slightly darker than the left.

The swelling was first thought to be due to some underlying inflammatory focus or new growth. The temperature, however, was normal, and X-rays revealed no evidence of bony growth or apical dental infection.

6th January 1927.—Radical antral operation: condition typical of chronic catarrhal inflammation of right antrum, as recently described by Dr Oskar Hirsch in the *Journal of Laryngology and Otology*, January 1927, p. 39.

Condition has cleared up.

MR HERBERT TILLEY said he was convinced that chronic catarrh of the antrum was often overlooked, even by specialists. Such cases as the present one were often treated as if they were cases of simple chronic

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inflammation of the nasal mucosa, and applications of the cautery or other forms of local treatment were carried out. The source of the trouble was a mild, chronic inflammatory condition in one of the accessory cavities. In the fourth edition of his (the speaker's) book, published in 1918, page 201, there was a section devoted to "Chronic Non-suppurative Inflammation" (chronic antral catarrh), in which the symptoms were enumerated and the danger of depending on transillumination was pointed out. In 1925 Harrison wrote that the above was the only text-book which he knew of in this country which emphasised the source of many cases of so-called chronic rhinitis.* Sometimes the condition could be cured by a few daily irrigations of the antrum, which might only contain an excess of mucus. When this, or the injection of some mild antiseptic fluid, *e.g.*, argyrol, did not get rid of the trouble, intranasal drainage should be provided.

He thought it only fair to point out that Dr Oskar Hirsch did not make the discovery of the pathological condition and its symptoms, since work bearing on it was published in this country ten years ago (*vide supra*).

Dr P. WATSON-WILLIAMS said that at the annual meeting of the British Medical Association at Birmingham many years ago, he (the speaker) had drawn special attention to the immense importance of these cases. In some cases none of the recognised symptoms of antral sinus infection were present; the transillumination, skiagrams and other diagnostic tests were negative, though by sucking some of the discharge into a syringe from a suspected antrum and culturing it, a definite diagnosis could be made. He had had many other cases in which latent sinus infection was responsible for the patient's troubles, *e.g.*, arthritic and other manifestations were as likely to arise from a sinus infection without signs as from a septic condition in the teeth and mouth. Transillumination was often, in doubtful cases, as misleading as it was helpful; it had no value as a crucial test. When chronic antral inflammation was present, the endorhinoscope would generally reveal streaks of more or less clear mucus, or more likely mucopus, constantly appearing at the posterior end of the inferior turbinate, the vessels running up to the inferior and middle meatus being usually congested on the infected side, the difference between the sound and the infected side being very striking.

Mr E. D. D. DAVIS said that in this case there was a swelling and expansion of the right ala nasi suggesting a new growth. It was not a latent sinusitis, as the inflammatory condition of the nose was obvious. At the operation it was found that the polypi had expanded the bony wall of the antrum.

Mr GRAHAM BROWN (in reply) said that on the first view it looked like a new growth or an inflammatory swelling, possibly due to an apical dental infection. He did not diagnose the condition at first. It was after making an incision under the lip and entering the antrum that he saw what the condition was. X-rays had shown a definite opacity, and he had therefore proceeded with the radical antral operation.

Series of Cases of Extensive Lupus of the Upper Air Passages treated by Radium—H. MORTIMER WHARRY, F.R.C.S. —Patients suffering from small lupus patches, which have readily

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healed after radium applications, are not included in this series, which contains only extensive cases.

(1) *Laryngeal Cases.*—These are cases in which the disease affected the larynx as well as other parts of the upper air passages. These are the most extensive and serious as far as the upper air passages are concerned. Owing to the patient's aphonia, the condition of the larynx has been the principal consideration in treatment, apart from actual cure.

Case 1.—Types (A) granulations and (C) tumour formation are exemplified. Patient is an unmarried woman, aged 24, with tuberculosis of apex of right lung which had been quiescent for some years. 1918: Nasal obstruction developed, due to lupus. Wassermann reaction negative. 1919: Voice became husky and disappeared altogether. For four years patient lived the life of a recluse for fear of infecting others, and owing to being unable to speak to anyone.

Examination (June, 1923).—General condition good; tuberculosis of lungs quiescent. Nose: cartilaginous part bulging as if from large polypi, but in this case caused by extensive crusting within the vestibule. Posterior edges of the vestibule and the anterior ends of the inferior turbinates were covered with large crusts, which also surrounded a perforation of the septum about as large as a threepenny-bit. The nose was almost completely obstructed by the crusts. On removal of one of the crusts a swollen and bleeding surface was revealed. Post-nasal space: In the right choana and resting against and attached to the septum, was a rounded white tumour about as large as a hazel-nut. Pharynx and fauces: The uvula was rigid and much swollen, with a granular surface. Granulations extended down the posterior left faucial pillar and tonsil bed and both the right pillars and right tonsil bed. The pharynx was heavily scarred from healed lupus. Larynx: Epiglottis scarred, deformed, and apparently healed. Both ventricular bands and vocal cords were thickly covered with granulations, and there was swelling of the interarytenoid region with granular surface. Phonation: The whole larynx was stiff and the cords did not approximate. Voice: none, whisper very feeble and only faintly audible.

Treatment.—Beginning on 5th November 1923, she received short courses of radium treatment at two-monthly intervals. These continued for a year.

Result.—After the first application of radium the crusting disappeared from her nose and she was able to breathe through it. Also, within six weeks she found herself able to speak for the first time after a silence of four years. The whole condition has since completely cleared up. Her soft palate was a little stiff, but to this mobility was

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restored with massage under cocain anæsthesia by Miss Curling. The voice is still somewhat husky, but is loud and the words are clearly audible; she can speak for any ordinary length of time without increased huskiness of voice or tiredness of the throat.

Case II.—Types (A) granulations, (B) vegetations and (C) tumour formation. The patient, a girl aged 18, had for three years suffered from nasal obstruction and complete loss of voice.

Examination.—Nose: Lupus of the vegetating type (B) was protruding from the left nostril. Granulations (Type A) extended through the left nasal fossa as far as the postnasal space. The posterior half of the right nasal fossa was also covered. Postnasal space: The posterior ends of both middle and inferior turbinates were affected, also the posterior pharyngeal wall and the superior surface of the soft palate. Pharynx and fauces: The pharynx was much scarred, and the uvula, fauces, and tonsil beds covered with granulations. Larynx: Epiglottis, ventricular bands and vocal cords were all thickly covered. In the interarytenoid region was a fair-sized lupus tumour (Type C). Voice: completely absent. Whisper only faintly heard. We had the greatest difficulty in persuading this patient or her mother that she would regain her voice. At the Radium Institute two years previously she had been told that the disease was too deep-seated to be attacked by radium.

Treatment.—Courses of radium at two-monthly intervals.

Result.—The whole condition has cleared up except on the right inferior turbinate. There is no nasal obstruction, and no scarring except in the posterior pharyngeal wall and epiglottis. The voice returned in four months and is now quite normal, and the patient is able to sing. The palate and fauces are freely mobile and show no scarring.

(2) *Nasal Cases.*—These are cases in which the nasal condition has been predominant, and in which the avoidance of its destruction and disfigurement has been the first consideration in treatment.

Case III.—Shows apple-jelly nodules on nose and lip and Type (A) granulations in the nose and pharynx. Patient is a male, aged 18, who had for several years suffered from nasal obstruction, and for one year had noticed spots on the nose and lips, with swelling and crusting of the right nostril.

Examination.—Nose: in the right nasal fossa the granulations extend back to the nasopharynx. In the left nasal fossa there is some slight granulation. Nasopharynx and pharynx: granulations extend downward behind both posterior pillars of the fauces, which are themselves slightly affected. Larynx unaffected. Neck: both tonsillar glands are swollen. Right lacrymal sac and right eye affected.

Treatment.—The usual line of treatment has been followed.

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Result.—The whole condition has made very satisfactory progress. There is now no danger of destruction of the right alar cartilage, and most of the disfigurement at first apparent has disappeared.

Case IV.—Shows apple-jelly nodules on the nose and Type (A) granulations. The patient, a man, aged 21, had for three years suffered from swelling and disfigurement of the nose, with nasal obstruction and much crust formation in the nostrils. His throat also had been sore and his voice husky for a year.

Examination.—Nose: the whole end of the nose was much swollen and covered with apple-jelly nodules, which also covered the alæ. The vestibule on each side was widely dilated with crusts and granulations which extended far into the nose. There was complete nasal obstruction. Postnasal space: some scarring and granulations in the superior aspect of the soft palate. Palate and fauces: the whole of the soft palate and fauces and most of the hard palate were covered with a uniform raised red mass of granulations. Larynx: the epiglottis was thickened with granulations and the anterior end of the left vocal cord slightly affected. The voice was husky but not extremely so.

Treatment.—As in the previous cases.

Result.—The case is still under treatment. The nose is now nearly normal and all risk of breaking down and disfigurement has gone. The patient can breathe well through both sides of the nose. The condition of the palate and fauces is rapidly disappearing. The epiglottis is still thickened, but the voice has again become normal.

April 8, 1927.

President—Dr ANDREW WYLIE.

Case of Sinusitis—T. B. LAYTON, D.S.O., M.S.—Patient first seen in May, 1925, with headaches; pansinusitis on the right side.

Hot light bath to head; right antrum washed out several times. Pus returned in middle meatus after the antrum was washed out. Pus high up on the right side seen with postnasal mirror.

In June, a high septum operation relieved pressure in the mid-turbinal region. Suppuration between flaps followed, with considerable swelling of the mucous membrane.

In September, 1925, right radical maxillary sinus operation (Denker) was performed under intratracheal general anæsthesia by Mr Gill-Carey.

In October, 1925, pus in the left antrum was washed out twice a week.

In November, severe headache, and pus returned after the antrum was washed out.

In November, radical operation on the left maxillary sinus with local anæsthesia—Caldwell-Luc.

On 17th December, the opening in the antrum is small, high up

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and far back; on washing out, no pus, but he still complains of headache.

In February, 1926, pus in the middle meatus after washing out the antrum.

In March, 1926, the anterior end of the left middle turbinal was removed.

In November, 1926, pus in the left antrum and the sinus was re-opened; Caldwell-Luc operation converted into Denker. Mucous membrane of the antrum appeared normal; re-admitted one week later for severe head pains.

Present condition: no sign of sinus disease, but he is not entirely free from pain.

The case is shown: (1) To demonstrate the value of high operation on septum and high removal of middle turbinal for drainage of frontal sinus.

(2) To compare the value of Caldwell-Luc and Denker's operation.

(3) The patient having had one operation under general and four under local anæsthesia, to confute those who say that the advantages of local anæsthesia cannot override the inconvenience produced by the mental disturbance and fear on the part of the patient.

Dr ANDREW WYLIE (President) asked as to the method of producing anæsthesia.

Mr LAYTON replied that he always operated on the maxillary sinuses by block anæsthesia combined with infiltration. First he cocainised the septum and lateral wall of the nose with cocaine ointment. For the block anæsthesia he had tried both the intrabuccal and the external methods. Externally, he had been using the method which went through the orbit. Within the mouth he used the method originally taught him by Mr Graham Brown of Brisbane, in which the needle was put into the mucous membrane at the back of the tuberosity of the maxilla. Either method was quite efficient. He adopted the mouth procedure if the upper back molars had been removed on that side. If the mouth was somewhat small he adopted the external route. There was another method through the mouth, but not so far back, which was efficient in many cases. In this the needle was inserted opposite the fang of the second upper molar. With it, however, one might not catch all the branches going to the back of the antrum, and the portion of the nasal fossa not touched by the block anæsthesia in this method was that below the inferior turbinal; therefore one must also infiltrate this area from the inside, the most difficult injection of all, because of the way in which the inferior meatus turned outwards. He always infiltrated sublabially. One was not bound to block. Sublabial infiltration associated with packing the antrum with 5 per cent. cocaine after it had been opened was a possible means of obtaining anæsthesia, but not so efficient as block anæsthesia.

Chart showing Striking Result of One Injection of Autogenous Streptococcus Vaccine—ARTHUR J. HUTCHISON, M.B.—Male, aged 44, had nasal obstruction about the seventh day of

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influenza, after the temperature had been nearly normal for two days. The temperature rose and "headache behind the eyes" was complained of. On the thirteenth day the left cheek became red and puffy. On the fourteenth day a bleb appeared on the left cheek, and on the fifteenth day on the right cheek and bridge of the nose. The right antrum contained some pus, the left contained pus under pressure. I opened both antra through the inferior meatus; thereupon the temperature fell by steps to 100° F. but rose again on the nineteenth day to 103° F. Meantime an erysipelatous flush was spreading over the forehead and into the scalp. On the twentieth day an autogenous vaccine (10,000,000 pure streptococcus) was given at 1 P.M. At 10 next morning the temperature had fallen to 97·6° F. and it has never risen above 99° since. The flush over the forehead and scalp disappeared in two days and the discharge from the antra very rapidly ceased.

Mr J. F. O'MALLEY said this was a very interesting case, as in it one seemed to see a condition in which, primarily, there was an intranasal infection. Whether the beginning of it was influenzal or streptococcal seemed doubtful, but the subsequent developments were manifestly streptococcal, and the continuance of the condition from the antral infection to the subcutaneous infection raised the question as to whether one was here dealing with a single kind of organism. The facial condition was the usual type of facial erysipelas, and the fact that the autogenous vaccine prepared from the pus from the antrum was so effective in the treatment of the pyrexia, raised the question whether the original infection in the antrum was not due to the *Streptococcus erysipelatosus*. He had not seen a record of primary infection of the antrum being due to *Streptococcus erysipelatosus*.

(?) **Actinomycosis of Tonsil**—A. L. MACLEOD, M.B.—Male, aged 33, was seen on 5th February, 1927, with swelling of the left tonsil of two months' duration; no pain; no enlarged glands in neck; Wassermann reaction negative.

26th February: piece removed for section.

9th March: Section shows a very vascular inflamed tonsil. It is crowded with organisms. No tubercle bacilli were found and there is no evidence of neoplasm. There are large numbers of a Gram-positive sporothrix present which has the microscopical appearances of actinomycosis. The microscopical appearances of the tonsil are in favour of this disease.

Mr J. A. GIBB asked what treatment had been adopted in this case.

Dr A. WYLIE (President) asked whether Dr Macleod punctured the swelling. He suggested a free incision into it, to see what it was.

Dr W. H. KELSON said he thought there might be deep-seated pus.

Mr H. BELL TAWSE said he thought this seemed soft for actinomycosis of tonsil, but there might be pus there also. Only a microscopical examination could enable a decision to be made.

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Dr MACLEOD (in reply) said there had been no treatment; he had kept the case three weeks in order to obtain the benefit of members' opinions. He removed a small piece for sectioning and he had intended to show three sections from the case, but he came away without them. He would report later.

Pharyngeal Diverticulum — HAROLD KISCH, F.R.C.S.—The patient presented himself at the hospital with typical symptoms of a pharyngeal diverticulum, the presence of which was confirmed by X-ray examination. The sac was removed by a two-stage operation. At the first, the sac was isolated in the neck in the usual way. At the second, the sac was removed in the following manner: A purse-string suture of silk was inserted through the pharyngeal muscle around the orifice of the sac; the neck of the sac was then crushed by an appendix clamp, and after a short interval the clamp was removed, the sac cut off, and the stump touched with pure carbolic acid. The stump was then invaginated into the pharynx, and the purse-string suture tied. No other suture was used. The skin incision was closed, a drainage tube being left in position. Intratracheal ether was the anæsthetic employed, and no feeding-tube was used. The patient made an uneventful and uninterrupted recovery.

X-ray photographs of the condition, before and after operation, are shown.

Mr A. J. M. WRIGHT, commenting on the remark that no feeding-tube was used, said he regarded this as a very important point. He thought the surgery of these œsophageal cases was now passing through the same evolution as the surgery of gastric cases. In the treatment of the latter kind of case, in former days, the surgeon starved the patient for a long period, fearing leakage at the junction. He felt sure there was less risk if natural feeding was carried out soon after the operation than if a tube was inserted into the œsophagus. The damage done to the patient by starvation was much greater than by running the doubtful risk of leakage.

Mr NORMAN PATTERSON asked what was the interval between the first operation and the second.

Mr KISCH (in reply) said that if he obtained good closure, he did not use a feeding-tube. If he thought a tube was likely to be necessary he used it for a week beforehand to accustom the patient to it. He did not use a tube if he could avoid it, and he had not had trouble from the omission. A week elapsed between the two operations.

He showed this case: first, because there was a slight alteration in the technique; secondly, to obtain opinions as to the danger of operating on this condition. During the last year he had had several cases in which he had advised operation, and they were referred to well-known members of the Section, who advised against operation. These patients were persons aged 55 to 60. One such patient was obviously starving, and he (the speaker) proposed to operate on him. He went to another member, who said the operation was too dangerous and that the man was too ill. It was not done, and the man died of starvation. He ought to have been operated upon, and he thought the proper thing, in that case, would have

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been to suspend the pouch and allow the man to take food. With improved health, removal could be done at a second operation. The surgeon ought not to allow a man with this condition to starve.

The other man whose case he had in mind was in good condition; he had a sac which he could empty himself. He (Mr Kisch) advised operation because the patient was very uncomfortable and because there was danger in leaving such sacs. In one case a sac was left and the man developed acute empyema in twenty-four hours. At the post-mortem the sac was found to be full of pus; the pleura had been directly infected from the sac. He did not know whether any member had seen malignant growth arising from such sacs, but it was a possibility.

This man was now well, but he still had his sac. He had hoped this matter would have been discussed. The danger alluded to by the surgeons mentioned was that of mediastinitis following operation. Apparently, when this operation was first performed, somebody had a fatal case, which had been reported over and over again; the supposed risk had therefore become exaggerated. He did not see why these cases should not be dealt with surgically. There was, of course, more risk in operating on these cases than in removing an appendix, for in an abdominal operation the peritoneum helped one, whereas here there was no peritoneum. If the exit of the sac were properly exposed, there was no difficulty in closing the orifice, and in his cases he had had no trouble or anxiety in regard to leakage.

Chronic Hypertrophic Laryngitis, treated by Diathermy —HAROLD KISCH, F.R.C.S.—A female presented herself at hospital with a history of many years' hoarseness, and almost complete loss of voice for two years. There was a grossly deflected nasal septum, and the larynx showed a swelling in the interarytenoid region, which occupied the posterior third of the laryngeal orifice. The usual examinations excluded tuberculosis and syphilis. Under an anæsthetic the swelling was burnt away with diathermy. The patient now has a good voice. A submucous resection of the septum will be performed later.

Dr JOBSON HORNE (quoting the description in the printed notes of the case) said the words "the patient now has a good voice," constituted a relative term. There was, undoubtedly, still hoarseness, and prolonged talking would probably produce again "almost complete loss of voice." The present condition, compared with that as given in the notes preceding the application of diathermy, did not appear to show any marked improvement. Moreover it was not reasonable to expect the application of diathermy to "a swelling in the interarytenoid region" in a case like the present one to produce "a good voice," for the reason that the interarytenoid swelling was not the main cause of the hoarseness. The case was one of pachydermia laryngis, with thickening of the vocal cords and the ventricular bands. General treatment would be of more value than local treatment; depletion, if not bleeding, was required.

Mr T. B. LAYTON said he was glad to see Mr Kisch trying a new line of treatment of pachydermia. He was doing what Dr Jobson Horne suggested, but was getting the depletion from inside the larynx, rather than from some point outside. He was sorry Dr Horne threw cold water on this attempt, as he (the speaker) had been most disappointed with the

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results in such cases. Admittedly it was the nasal obstruction which was largely the cause of the laryngitis, but his experience had been that submucous resection did not do the larynx any good. Probably it had to be done in this case in order to give the diathermy a better chance. Having secured a relative improvement in the voice in this patient, it might be well to try to get rid of the swelling somewhat by further diathermy. He asked what anæsthetic Mr Kisch used and how it was administered. He would like to hear Dr Jobson Horne's evidence for the statement that it was not the swelling in the interarytenoid region which was the cause of loss of voice. And if it was not, what was the cause in such cases?

Dr JOBSON HORNE, answering questions put by Mr Layton, said that swellings or excrescences in the interarytenoid space, when seen clinically, suggested that their removal would produce an improvement in voice. That suggestion was misleading. For when seen post-mortem they were found to be so far above the level of the vocal cords and the level of the ventricular bands that it was obvious their presence was not the material cause of the hoarseness or the loss of voice. That was due to a thickening of the vocal cords and of the ventricular bands, which was invariably present in cases of pachydermia laryngis presenting interarytenoid excrescences. He (Dr Horne) hoped to have an early opportunity of demonstrating and describing more fully the points he had touched upon. By bleeding he meant, of course, phlebotomy, not local bleeding. Blood-letting and rest of voice would be helpful, but nothing would be gained by any electrical burning of the larynx.

Mr HERBERT TILLEY said that in this patient's case there still remained some thickening, and Mr Kisch might be tempted to make a second application of diathermy. He asked whether œdema of the larynx or difficulty of breathing followed the procedure.

He thought there was much in what Dr Jobson Horne said as to the pachydermia being a local manifestation of a general condition of fibrosis. In the University College Museum there was a specimen of a large interarytenoid pachydermia, which occurred in the speaker's clinic many years ago. That patient suffered from hoarseness and difficulty in breathing. Dr J. W. Bond saw the case with him and considered it malignant. A week or two after treatment the patient had died, it was said, "after a fit of choking." He managed to secure the larynx, and also a small fragment of the liver, which had all the characters of gin-drinkers' or hobnailed liver. Therefore it was an instance of more or less generalised fibrosis of alcoholic origin. He did not know how far alcoholism might be a factor in Mr Kisch's patient. It was difficult to get rid of the localised laryngeal hyperplasia, and possibly for the reason that the disease was not a purely local one.

Dr W. H. KELSON said that Mr Kisch had obtained a brilliant result in this case. It was very important that the case should again be brought before the Section in six months' time to see whether the improvement seemed to be permanent.

Dr NEW (U.S.A.) said that a few months ago he saw a case which rather emphasised the local aspect of such a condition. It was that of a man who, for eight years, had been working in a room in which there

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were always steaming towels. He developed typical pachydermia, and later had to submit to tracheotomy. Later still, on the recommendation of Dr Lewis of Philadelphia and Professor Chevalier Jackson, laryngectomy was carried out. In that man's case there seemed to be no general reflex of the local disease.

Mr KISCH (in reply) said the patient's voice was now 75 per cent. better than before; her larynx had been half filled with the protuberant mass, and she had had to resort to writing her wishes down. He left it to members to decide whether interference with talking was due to the swelling in the interarytenoid region.

Chloroform was the anæsthetic; a directoscope and an ordinary sized electrode were employed. The difficulty was in deciding how deep to go, because of the risk of causing fixation of the crico-arytenoid joint. On the whole, he was fairly satisfied with the result. The question of applying the diathermy further was a very serious one. Though the patient could not sing in the choir, she was fairly satisfied with her voice, and if he did more he might render her condition worse functionally. He had removed similar growths with the knife, and they had recurred quickly; he regarded the result obtained by the diathermic method as better than by any of the other means he had tried. He would bring the case forward again next year. Submucous resection would, he thought, make the patient much more comfortable. He wondered, in view of Dr Jobson Horne's criticism, what he (Dr Horne) would have done if the case had come before him. There was no trouble from œdema.

Double Recurrent Paralysis caused by Tuberculous Glands—T. B. JOBSON, M.D.—Female, aged 37, was admitted on 16th June, 1922, with chronic delusional insanity.

Nothing abnormal was found in the chest. Weight, 10 st. 9½ lb.

On 29th September, 1926; has lost two stones since admission. In rather poor health. Complains of sore throat, but nothing can be seen or felt. Nothing in heart and lungs. X-rays did not show anything abnormal.

27th October, 1926.—Still complains of her throat.

12th December, 1926.—Voice husky, stridor at times; coughed up a little blood.

21st December, 1926.—Examination by Dr Jobson: Larynx showed double recurrent paralysis, more marked on right side. Adductors were involved as well as abductors.

X-rayed again; skiagram suggested tuberculosis.

Wassermann reaction negative.

26th January, 1927.—Slight right external strabismus noticed; complained of pain in eye and right ear.

17th February, 1927.—Difficulty in swallowing increasing; she was able to take very little food; breathing is stridulous. Temperature 100° F. to 101° F.

21st February, 1927.—Patient died.

Dr Robinson, to whom I am indebted for this specimen, considers that death was hastened by the pressure on the vagi. Post-mortem specimen shows tuberculous glands around root of the lung.

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Dr ANDREW WYLIE (President) asked whether members had seen many cases of double recurrent paralysis of the larynx caused by tuberculous glands.

Mr J. A. GIBB said he had a case due to extensive tuberculous glands on the right side of the neck. Directly the discharge had ceased and healing had taken place, the patient became affected with paralysis of the right vocal cord. This had happened two years ago, and the question was whether operation would do any good; he thought not. During the War he carried out scar-tissue operations on the arm, etc.; and some of the cases did well.

Tumour involving the Orbit and Certain of the Nasal Sinuses.—J. A. GIBB, M.D.—Female, aged 61, was referred to me by the Eye Department on 11th September, 1926.

Left eyeball was proptosed and some swelling at inner part of orbit pushed the eyeball outwards and downwards. It was thought to be a mucocele of the frontal sinus.

19th September, 1926.—Upon incision it was seen to be a growth involving the soft tissues of the orbit. As no permission had been obtained to excise the eyeball the wound was sewn up after a piece of the tumour had been excised for examination. The next day she was informed of the seriousness of her condition. She declined any further operation.

11th November, 1926.—Presented herself at the hospital, having made up her mind to undergo any operation necessary. The growth was seen to have increased. Ophthalmic report: vision, right $\frac{6}{12}$; disc, right, normal; vision, left, $\frac{6}{60}$; nerve head shows signs of pressure; no atrophy, disc blurred; eye tender to pressure.

The operation was planned so as to expose growth and to remove it completely; this was found to involve tissues of orbit, ethmoid, frontal sinus, and to be prolonged into, but not growing from, the maxillary antrum. The orbit was completely exenterated and the dura mater of the middle fossa exposed. After careful suturing the cavity was firmly plugged with gauze soaked in acriflavine $\frac{1}{500}$.

Pathological Report.—(1) Type similar to parotid tumour; slender columns of endothelial cells lying in an abundant hyalomyxoid base. (2) Endothelioma with a good deal of fibrosis round tumour masses.

Mr W. M. MOLLISON said he feared there was recurrence in the region of the nasal process of the maxilla, perhaps involving the antrum. He suggested that when Mr Gibb operated on the case again he should apply diathermy to the walls of the cavity at the end of the operation. He had done that on two or three occasions and thought the result better. The patient's teeth were in a very bad state and they should have all been removed before operation. [Mr LAYTON: What about applying diathermy to the outer side of the dura mater?] No, not to the dura mater.

Mr J. A. GIBB (in reply) said that the sulcus had filled up extraordinarily since the operation. The nasal process of the maxilla was removed completely, and the antrum exposed. The growth projected into the

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antrum; it was not attached to the antrum. The nasal bones, the lacrymal bone, the os planum and the wing of the sphenoid were taken off, and the floor of the orbital cavity, the roof of the frontal sinus, and the middle fossa were exposed. He plugged the cavity firmly with gauze steeped in 1 in 500 acriflavine, causing stoppage of heart and respiration; upon liberation of the plug, breathing and pulse re-started.

In a case of carcinoma which he had previously shown, there was an excess of lipoid in the cancer cells, and there was a great excess of lecithin-lipoid in all new growths. In 6 gr. weight of granuloma removed he obtained ½ gr. of pure lecithin-lipoid. In a wart or a fibroma there was more lecithin-lipoid in the cells than in carcinoma. This seemed to show that there was increased irritability of cells in people who had new growths, and there was likely to be a greater growth of cells as a result of irritation than in the case of cells in which there was only the normal trace of lecithin-lipoid. A point of interest would be as to whether cholesterol, which was anti-lecithin lipoid, was or was not found in carcinoma. If it were found in carcinoma, one would say that the patient had a better chance of recovery than if cholesterol were not present. Did Mr Mollison think that deep X-rays would have an influence in preventing recurrence in this case? A further operation on this patient would not be welcomed.

Mr MOLLISON (in reply to Mr Gibb) said he had great faith in the application of deep X-rays in the treatment of these growths.

Tracheotomy Tube removed from a Woman aged 58, after being present for Eighteen Months—NORMAN PATTERSON, F.R.C.S.—There was a small fistula in the neck and the tube was completely buried amidst granulations; the detached portion of the outer tube was difficult to find. A fresh tube was inserted and kept in position for fourteen days. The condition for which the original tracheotomy was performed was not ascertained.

Case for Diagnosis: A. L. MACLEOD, M.B.—Male, aged 52, a clerk, had loss of voice for six weeks; no dysphagia; no cough; no expectoration; no loss of weight; marked swelling of ventricular bands and arytenoids; no ulceration seen: Wassermann reaction negative.

Dr JOBSON HORNE said he was inclined to regard the condition as due to tuberculosis. In addition to the loss of voice for six weeks, he understood that nine months ago the man had lost the voice for a while. On the glottic surface of the left arytenoid there was some ulceration and at a site which was very suggestive of tuberculosis. He would anæsthetise the larynx with cocaine and adrenalin, using a suitable laryngeal syringe so that the solution trickled over the epiglottis and found its way along the ventricular bands and arytenoids, inducing some anæmia. Then one could form a better idea of the starting-point of the disease. While the larynx was under the local anæsthesia he would remove a piece from the glottic aspect of the left arytenoid for microscopical examination.

Mr J. F. O'MALLEY said the lesion looked suspiciously like tuberculosis, but it might be early carcinoma, for now one could see, in addition to the swelling of the arytenoid, a slight mass of new tissue on its anterior and also on its outer aspect. In between, there was a moist depression suggesting an ulcerating area. If it was early carcinoma, it was extrinsic

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and it would soon prove itself by secondary infection of the glands. At present he could not find any enlarged glands. He agreed with Dr Jobson Horne that a portion of what appeared to be increase of tissue should be removed from the arytenoid; probably that would give an indication as to the nature of the lesion.

Dr MACLEOD (in reply) said that the suggestions made would be carried out. When the notes had been prepared, a fortnight ago, there was no sign of ulceration.

Fibroma of the Pharynx, with Malignant Changes at its Base—V. E. NEGUS, F.R.C.S.—The growth apparently started as a simple fibroma. The patient was seen in October, 1926, when the pharynx was almost completely filled, and there was considerable dyspnœa. After removal of the tumour carcinomatous changes were seen in sections. Lateral pharyngotomy and removal of glands had been done; the glands were innocent. The case is too early to decide as regards the question of cure: it is shown because of the interest attached to the malignant changes in what was probably a simple tumour.

Ulceration of Vocal Cord; ? Malignant—W. H. JEWELL, M.D.—F. M., aged 48. This patient was shown at the last meeting under the above heading.* There was a division of opinion as to the diagnosis. The majority advised against removal of the cord as they considered it was tuberculous. Temperature chart shows no rise of temperature and skiagram of chest shows no abnormality. The temperature was recorded for a month, and we have had a skiagram taken; no active mischief is apparent. There were a few calcareous glands. The apices were normal. Two physicians have seen the case, and cannot detect anything in the lungs. I think the condition is malignant, and that I am justified in attempting to remove the cord. There could not be much harm done, and it will probably relieve his pain. It ulcerated through in three weeks, and there has been no constitutional disturbance, as there would have been, I think, had it been tuberculosis.

Mr NORMAN PATTERSON said he thought the ulceration was carcinoma, but the opposite cord seemed to be involved. As there was no sputum he would take a direct swab from the larynx and inject the material into a guinea-pig to see whether tuberculosis could be excluded. Laryngectomy was the only treatment for a growth of this extent.

Dr JOBSON HORNE did not think that, clinically, the case was suggestive of tuberculosis; the ulceration was confined to the vocal cord, and if the disease were due to tuberculosis the ventricular band and other parts of the larynx would also be involved.

Dr ANDREW WYLIE (President) said he thought the case was malignant, and that the other was also affected. Total laryngectomy seemed indicated.

Mr J. F. O'MALLEY said that though this would most likely prove to be carcinoma, occasionally one saw strange cases of tuberculosis with deep

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excavations of the kind this case presented. And the fact that there was a second lesion did not entirely exclude that possibility.

In one striking case he had had there was a good deal of controversy with the War Office, the patient being an officer whom the speaker saw during his service at the Herbert Hospital at Woolwich. Clinically, it was like this case, and his diagnosis was tuberculosis of the larynx. No tuberculosis could be found elsewhere, and syphilis was excluded. The patient was under observation for some time. Six months later he died from acute tuberculosis. He did not think the present case was tuberculous.

Mr JEWELL (in reply) said that the left cord was completely fixed; there was free movement of the right one. He (the speaker) thought he would remove the cord.

Postscript—22nd April, 1927.—A portion has been removed from the left cord, and the pathologist reported it to be an epithelioma. A few days later laryngofissure was performed and the left cord was removed together with the surrounding tissues—the cricoid being divided in order to remove them more freely in the subglottic region. A portion of the right cord was also removed.

Growth of Palate (Shown at last meeting of the Section)—H. BELL TAWSE, F.R.C.S.—Female, aged 35. (See page 617.)

Pathological Report.—"The section shows a basal-celled carcinoma of relatively innocent type, homologous with the so-called mixed tumours of the salivary glands. In this case it is not difficult to trace its origin to the ducts of mucous glands."

In view of this report suggestions are asked for as to the extent of operative treatment indicated.

Mr TILLEY said that complete removal would involve a very extensive operation and might be productive of no more benefit than if radium needles were inserted. The present method was to insert four or five needles with one milligramme of radium in each, leaving them *in situ* for four days. Some members had seen this type of treatment in the Radium Institute, Brussels, and with extraordinarily good results; he referred to cases of epithelioma of tonsils and neighbouring regions. If radium did not do what might be expected of it in this case a wide removal could subsequently be carried out, and then the specimen Dr Horne had asked for could be provided. To remove a portion of the growth now for section might involve a certain degree of septic infection.

Mr RIDOUT said he would remove a large piece, and carry out a wide destruction by application of diathermy.

Dr JOBSON HORNE said there seemed to be some doubt about the malignant nature of the growth. If, as stated in the report, the growth was "a carcinoma of relatively innocent type, homologous with the so-called mixed tumours of the salivary glands," then its removal by surgical interference was liable to be followed by a recurrence and metastases of a less innocent type. For that reason he was in favour of treatment by diathermy.

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