SOCIETIES' PROCEEDINGS

ROYAL SOCIETY OF MEDICINE—SECTION OF LARYNGOLOGY

May 4, 1923.

President—Mr CHARLES A. PARKER, F.R.C.S.Ed.

Two Cases of Laryngo-fissure for Intrinsic Cancer of the Larynx—Sir ST CLAIR THOMSON, M.D. :—

1. Male, aged 80, shown six months after operation. The right vocal cord was replaced, except for a small portion posteriorly, by an irregular, pink, fleshy growth. The cord moved freely, but the clinical appearances were typical of malignant disease. He had smoked all his life, and still smokes three to four ounces of tobacco every week.

Laryngo-fissure, 21st October 1922; thyroid ala removed; tracheotomy tube left *in situ* seven hours. Patient swallowed easily the same evening and was sitting out of bed next day, playing chess.

The chief interest of this case consists in the age of the patient and in the absence of shock. It was only after careful consultation that it was decided to operate, Dr Frederick Price reporting that there was fibroid degeneration of the myocardium, arterial disease, probably a rather dilated aorta, and attacks of angina during the last five years.

Since the operation the patient has been out hunting, sometimes following the hounds for three or four hours.

2. Male, aged 40, shown one year after operation. The early age of the patient and some difficulty in diagnosis were points of interest.

In January 1922, the patient lost his voice suddenly when trying to sing. In March, when first seen, the right vocal cord was found to be invaded in its whole extent by an irregular, mammillated, projecting cauliflower growth with white points. The cord moved freely; examination for tubercle negative. Diagnosis of epithelioma was made from clinical appearances, and was agreed to by Messrs Tilley and Hope. Voice rest for six weeks resulted in improvement of voice, but in a more marked local condition.

Laryngo-fissure, 19th March 1922, with removal of thyroid ala. Profuse hæmorrhage occurred at the end of the operation and some spouting vessels were ligatured. The operation occupied one and a quarter hours, but forty-five minutes more were spent in checking the bleeding. There was no subsequent hæmorrhage, and the tracheotomy tube was removed the same night.

Patient sat up next day and was walking outside on the fifth day. The voice is, at present, not as satisfactory as in most cases, probably

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due to his failure to report himself from July to September, and to overuse of the voice. This started a compensatory hypertrophy in the ventricular band before a new cicatricial cord had formed. Whispering only was ordered for two months, and the voice is now improving under lessons from Mr MacMahon.

Laryngeal Case apparently of Epithelioma (possibly Syphilis). Completely healed and arrested under X-ray Treatment without Operation—Sir St Clair Thomson, M.D.—Male, aged 68, first seen October 1921, complaining of gradual loss of voice for nine months. The right vocal cord was quite fixed, being deeply ulcerated and mouse-nibbled, and with a succulent and indolent appearance very suggestive of tubercle. Bronchitis present, but no signs suggesting tubercle; Wassermann reaction negative; blood-pressure 150, auricular fibrillation, no fever; weight, 9 st. 10 lb. He had been getting thinner.

The local condition in December was more suggestive of malignant disease. The right side of the larynx, except the arytænoid, was still quite fixed; the cord was invaded throughout its entire length; there was a small red granulation in the anterior commissure, and a suspicious area in the right interarytænoid region. The ventricular band and the arytænoid were not invaded.

Mr Trotter considered that, in view of the extension and the patient's age and feebleness, operation was not justifiable. In January 1922, patient reported that he had seen Sir James Dundas-Grant, who had removed a portion of growth endolaryngeally which was reported to be malignant. On 17th January, the condition seemed worse. There was a gland the size of an almond on the right side of the neck; the right side of the larynx remained quite fixed, the arytænoid was enlarged and infiltrated with a slight defect at its summit. The right ventricular band was red and infiltrated, and concealed a good deal of the right cord, and there appeared to be subglottic extension.

The patient was transferred to Dr Knox for X-ray treatment. In June 1922, patient was looking better; had gained weight; no gland in neck. The appearances of the larynx had changed in a most remarkable way. The right arytænoid was quite normal and as good as the left; it moved, but the right side of the larynx remained fixed by infiltration of the ventricular band. Still, this was diminished so that the anterior third of the right vocal cord was visible, and was seen to be quite healthy. The posterior two-thirds of the cord, on its upper and inner surface, were occupied by a clean, deep, triangular ulcer. There was a little ulcerating crinkling in the interarytænoid region. The condition again appeared tubercular.

In November 1922, the larynx had advanced to the condition in which it has now remained for five months. No glands in neck; no

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fresh disease anywhere in the larynx, and the left side remains normal. On the right side the arytænoid and the inter-arytænoid area are again normal. The right endolarynx is quite fixed, as if the vocal cord was adherent to the outer wall. The ventricular band is not infiltrated. Below it, there appears the anterior two-thirds of a fixed white vocal cord, or the cicatricial cord which has replaced the natural one. The present appearances are, indeed, not unlike those left after a successful laryngo-fissure for intrinsic cancer. The general health is satisfactory, except for the cardiac condition.

The case is extremely puzzling. It may be recalled that the laryngeal trouble started two and a quarter years ago. Drawings made by three independent observers show a decided and extensive lesion. The process has apparently completely cicatrized. If the microscopic specimen is to be thoroughly relied upon, it looks as if retrogression and complete scarring had been effected by the X-ray treatment.

As recorded, the laryngoscopic appearances have at times seemed more tubercular than malignant. (Spontaneous healing, occurring so rapidly in five months and leaving a fixed cord, is unusual in tuberculosis.)

Could it have been luetic in spite of the negative Wassermann? (Specific conditions sometimes heal spontaneously and rapidly.)

Sir JAMES DUNDAS-GRANT said that tuberculosis had been suspected at the time that he (the speaker) had removed the outgrowth on the vocal cord for examination, but the microscopic section and photomicrograph had shown its typical epitheliomatous nature. The success of Dr Knox's treatment of this case by X-rays alone had been most brilliant.

Dr P. WATSON-WILLIAMS asked whether the exhibitor usually removed the ala, and whether any advantage was gained by doing so; also he inquired as to the length of the X-ray séances in the third case.

Mr A. J. M. WRIGHT asked whether Sir St Clair Thomson ever sutured the wound in the larynx. If not, had he any theoretical objection to the practice? In a recent case he (the speaker) had inserted catgut stitches, and had had no reason to regret it.

Dr ROBERT KNOX said that the third patient had been treated by the ordinary technique employed for several years at King's College and the Cancer Hospitals, except that a larger dose at more frequent intervals had been employed. The radiation was the most penetrating which the hospital apparatus, a 16-in. coil, would yield, increasing up to a 10-in. spark, approximately 130,000 to 150,000 volts. The filtration was through 8 mm. of aluminium, and a pad on the skin provided a second filtration to prevent secondary radiations damaging the skin. Twice a week, for a month, patient had a full dose of the rays directed on to his larynx, first from the left side, then from the right, followed for several months at fortnightly intervals. Altogether, he had had twenty hours of exposure, spread over a considerable time. A striking feature was that the frequent exposure had

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produced no effect on the skin. It was a treatment he had used in other cases—*e.g.*, in tuberculous glands—with a favourable response. Similar treatment had been used in another case of sarcoma of the pharyngeal wall, sent to him by Dr Dan M'Kenzie eighteen months ago. The same technique had been employed over a long period, and the growth had disappeared. These two cases were the most successful he had had.

Mr A. J. HUTCHISON referred to six of his patients with intralaryngeal cancer, upon whom Sir St Clair Thomson had operated. One operated upon three months ago had had a growth which had extended to the front of the cord, and had probably crossed the middle line. In this case Sir St Clair Thomson divided the thyroid cartilage on the opposite side of the middle line, and so far there had been no recurrence, though it was too early yet to be certain of the result. The success of these operations had been very striking. Of the six patients he (Mr Hutchison) had sent to the exhibitor, he had lost sight of one, one had died of pneumonia several years after the operation, one, an alderman, was now able to preside at meetings and to make himself heard in a large room, one was a former policeman, now aged over eighty, and the others were well.

Dr ANDREW WYLIE inquired why Sir St Clair Thomson had discontinued the practice of removing a piece of the growth—especially if projecting—for microscopical examination? The omission to do so had resulted in his (the speaker's) hands in one or two mistakes; *e.g.*, in one case he had performed laryngo-fissure and then found that the condition was tuberculous; he had seen two similar cases in the practice of others in which this mistake was also made. It was a simple procedure to remove a piece of growth endolaryngeally. Sir St Clair Thomson had referred to the free mobility of the cord, which indicated that the cord was not deeply involved by the growth, otherwise there would be a want of movement, not necessarily a fixed cord, but sluggish action.

Dr WILLIAM HILL said that he also had performed laryngo-fissure in a case of tuberculosis of the larynx; he had found it a good form of treatment where the disease was chronic and limited to one cord, a form which in appearance simulated malignant disease. In such a case there was no indication to remove the thyroid ala.

Mr E. D. D. DAVIS asked how many cases of laryngeal carcinoma Dr Knox had treated by X-rays and, in how many, had good results been obtained? Some patients came to hospital for the first time suffering from urgent dyspnœa, and requiring tracheotomy; he (Mr Davis) had had four such cases within three years. Was there any possibility in these cases of a complete removal of the growth by laryngo-fissure? In two of the cases the extent of the growth had been determined by laryngo-fissure, but complete laryngectomy had been necessary because the growth had invaded the lateral wall of the larynx. In the other two, tracheotomy had been performed, after which the patients had refused laryngectomy. His own experience had been that if there was urgent dyspnœa in a case of carcinoma, it was generally inoperable by laryngo-fissure. If he had another case where tracheotomy was urgent, he would attempt to remove the growth at the time of the tracheotomy.

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Mr MUSGRAVE WOODMAN remarked on Sir St Clair Thomson's low mortality in these operations. Sir St Clair Thomson had operated upon a male patient of his (the speaker's), a fat, florid, somewhat alcoholic man, who had septic tonsils and a septic mouth. Yet he had done extremely well, and had been out-of-doors at the end of the week. With regard to Dr Wylie's remarks on endolaryngeal removal of a portion of the growth for microscopical examination, he (Mr Woodman) would remind Dr Wylie of the case of the Emperor Frederick of Germany, and the history and treatment recorded by Sir Morell Mackenzie in his publication, *Frederick the Noble.* Sir Morell Mackenzie had removed portions of the growth on several occasions, and they had been microscopically examined by Virchow and others and pronounced non-malignant. He (Mr Woodman) considered that the patient had died from lack of application of this successful operation, and as a result of too much dependence being placed on the opinion of the pathologists.

Mr HAROLD KISCH said that the oldest patient upon whom he had performed laryngo-fissure was a male, aged 79—now 82. The operation had presented no difficulty and had occupied twenty-five minutes. In this case some delay in the healing of the tracheotomy wound had occurred owing to ossification of the rings of the trachea; otherwise the patient had done well.

Mr CORTLANDT MACMAHON said that he had spoken on the subject of the training of the voice after operation for intrinsic cancer of the larynx before the Medical Society of London in 1919, when several members now present had heard his remarks. The line to adopt in the re-education of the voice was contraction of the sternothyroid and sternohyoid muscles in order to sink the larynx and so get relaxation of the uninjured cord. The styloglossus, stylohyoid, palatoglossus and palatopharyngeal muscles, being hypertrophied through overuse, prevented the descent of the larynx. Therefore, in a bad case he (Mr MacMahon) employed the fingers of his right hand so as to depress the back of the tongue; in mild cases he advised the patient to use a glass tongue depressor. In a few weeks after this procedure a marked descent of the back of the tongue and larynx was produced. In many cases of chronic pharyngitis and laryngitis, the appearance of the hypertrophied palatopharyngeal muscle was like an inverted V, and after treatment an inverted U. The sternothyroid and sternohyoid muscles became so strong that they sank the larynx and then the voice became deep-pitched and the vibrations were produced with very little effort. One of Sir St Clair Thomson's patients whom he (the speaker) had seen that day was better, but still had poor vocal technique, the chief fault being overbreathing, which raised the upper chest and caused general rigidity of the throat. By improving the technique of the production of the voice, considerable comfort and increase of tone would be obtained. Underlying the vocal treatment of all forms of throat affections was the physical relaxation of the muscles above the larynx and the acquirement of a considerably lower pitch of voice.

Dr KNOX (in reply to Mr E. D. D. Davis) said that he had not yet treated many cases in the way he had described. He had treated a number of cases of patients suffering from advanced laryngeal carcinoma with the

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object of affording some palliation. The case just described was one of the first he had had in which more than a palliative result had been obtained, and he had been stimulated to try it by the reports from continental centres in which curative effects were claimed for high voltage radiations administered in large doses. The question of the duration of the dose was always an important one. A single large dose was advocated by some authorities, three to six hours at one sitting; others preferred to give the large dose in parts, of one hour each, on succeeding and alternate days. The latter method appeared to be the preferable one, because it did not exhaust the patient so much, and acted quite as favourably upon the local condition.

Sir ST CLAIR THOMSON (in reply) said that the remarks had shown the great advantage of discussing a number of similar cases the same afternoon as had been suggested to-day by Mr Woodman at the Council Meeting. Referring to Dr Watson-Williams' query, Sir St Clair Thomson said that he now always removed the thyroid ala, and he was quite satisfied with the procedure. Of sixty cases in which he had performed laryngo-fissure, eight were 70 years of age, and all recovered from the operation. One had died of cerebral hæmorrhage many years after the operation, and six were still alive and well. Mr Hutchison had sent him a number of cases, and the fact that six patients had come to him from one town showed that the condition was fairly common. Some cases suspected to be malignant were found, after waiting and watching, to be tubercular. In reply to Dr Wylie, Sir St Clair Thomson said that his records showed that in less than half his sixty cases mobility of the cord was affected. If one waited for the cord to be fixed, one was waiting for the patient to die. Sir Felix Semon and others maintained that in the majority of cases a fixed cord was characteristic of this condition; but more than half of the speaker's cases were operated on long before the growth had infiltrated and fixed the cord. It was this teaching concerning fixation of the cord which retarded early recognition of these cases. The reason he did not remove a piece of growth for microscopical examination before operation was, because it was impossible to remove a piece from an embedded growth in a vocal cord without doing so much damage to the cord that one might as well perform laryngo-fissure at once. He always removed a portion for examination, if it could be done satisfactorily. There were only fourteen cases out of his sixty in which he considered it was feasible to remove a portion. When the growth was subglottic and embedded, the portion which presented was simply inflammatory tissue. In fourteen of his cases, two were reported microscopically to be innocent, but he went on with the operation, and the disease was found to be malignant. He had recorded and published every one of his cases. The death-rate was three; one of the patients—a very disappointing case—died of rupture of the œsophagus, caused by vomiting. He agreed with Mr E. D. D. Davis, that when a patient was found on first examination to have stenosis, the case was suitable only for laryngectomy. He (the speaker) pleaded for an early diagnosis. He had made only one mistake in diagnosis, a case not included amongst the sixty now referred to. The patient had a negative Wassermann reaction, lungs and sputum gave negative results in tests for tubercle, and the patient was a hale and hearty policeman. When the larynx was

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opened, he (the speaker) felt the cord and it was soft, but still he thought it must be malignant. He removed the growth along with the cord, and it turned out to be tubercular. Three months later, tubercle bacilli were found in the sputum, and the patient had taken a long time to get well. As to the interesting case "cured" by radium, he (Sir St Clair Thomson) thought the right attitude was to "wait and see."

Tuberculosis of the Larynx cured Seven Years ago by Silence and Galvano-Cautery—Sir ST CLAIR THOMSON, M.D.—Male, aged 39, was admitted to Midhurst in February 1915, with disease in the right lung and tubercle bacilli in the sputum. There was deposit in both ventricular bands, their edges being ulcerated; both vocal cords were pink and abraded. Silence was not kept strictly at first; the larynx became worse, and fever developed. Hence, five months after admission, the whole larynx was infected; the vocal cords became red and swollen, with ulcerating deposit over each vocal process and posterior half of each cord, invading the edges of the ventricular bands. It required six months' further silence and sanatorium treatment before the larynx was sufficiently quiet to warrant treatment with the galvano-cautery. This was applied three times—December 1915; January 1916; and February 1916. In March 1916 (*i.e.*, thirteen months after admission), he was allowed to talk, and in May 1916, the larynx was quite cicatrized and has remained sound for seven years.

The patient subsequently served with the Army in France as a military chaplain. His health is excellent, and he fulfils all his duties actively.

Healed Tuberculosis of Lung and Larynx—Sir ST CLAIR THOMSON, M.D.—Female, whose larynx had healed by silence and galvano-cautery. The case required eighteen applications of the cautery between August 1912 and May 1917. The larynx has since remained scarred. Patient was shown at a meeting of the Section in June 1921, as a healed case, and it was noted that there was some stenosis and shortness of breath. This increased slowly, and required a tracheotomy on 12th October 1922.

She can now walk for miles and climb stairs; excellent health; carries on work easily in a post office, wearing a low (Durham) tracheotomy tube with a speaking valve in it.

Sir JAMES DUNDAS-GRANT said he deprecated using the galvano-cautery in the interarytænoid space, because of the risk of setting up cicatrization, which might contract the glottis. He used it freely in other parts of the larynx. In the case shown of "Healed Tuberculosis of the Lung and Larynx," it was fortunate that the cauterization had been carried out high up in the larynx, and that the cicatricial band which resulted had been well above the level of the vocal cords. In the interarytænoid space, treatment

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a little less searching should be tried, such as trichloracetic acid, which acted well on tuberculous outgrowths and caused less cicatricial contraction than the galvano-cautery. When he had first taken charge of the throat cases at Brompton Hospital, he had expected to find the tuberculous patients getting progressively worse, but that did not prove to be the case, for large numbers had improved very much, and some got well. Much could be done for these patients by paying attention to modern details of treatment. The "silence" treatment was more important than anything else. Some time ago he had shown before the Section a patient in whose case subglottic infiltration had disappeared with treatment: she had been in a sanatorium, and had been sent away because it was considered that nothing more could be done for her. In her case the greatest benefit was derived by syringing through her nose a solution of eucalyptol 1 part, in almond oil 20 parts; this trickled into the larynx, trachea, and ventricles. Another plan was to inject, by an intralaryngeal syringe, a solution of argyrol: he had seen improvement in subglottic infiltration within a week after this had been done. A mixture of anæsthesin and orthoform inhaled into an œdematous larynx seemed to diminish the degree of œdema, and patients were enthusiastic about the relief from pain afforded by this. Even a cancer patient said he felt a different man after using it in conjunction with Dr Knox's treatment.

Case of Epithelioma of the Vestibule of the Nose after Treatment by Radium—Sir JAMES DUNDAS-GRANT, K.B.E., M.D. —Female, first seen on 5th July 1922, complaining of soreness and obstruction in the left nostril. A pale, warty growth protruded, and a piece of it was removed for microscopical examination. It was reported to be epithelioma.

The patient has been continuously under treatment by Dr Knox with radium, and after some months a portion of the stump of the growth was removed for microscopical examination; it showed changes in the nature of the epithelial cells produced by the radium as follows: "Tissue shows an epithelioma, one aspect of which reveals a superficial ulceration. The cells of the superficial epithelium are vacuolated and necrotic, and there is a well-marked invasion of polymorphonuclear leucocytes, together with small areas of hæmorrhage. The corium shows, in addition to polymorph cells, granulation tissue cells and fibroblasts. The epithelial layers on the side opposite to the ulcerated surface are little affected."

Dr ROBERT KNOX said that apparently the case was one of rodent ulcer; it had been examined by a pathologist, who had reported it to be one of epithelioma. The changes seen in the section were typical of those produced by radium or X-rays, and he did not think it was material which form of radiation was used, provided the dosage was right; the important point being the amount of radiation absorbed. Radium was the more easily applied, as a small tube could be introduced into almost any space, and in the accessory sinuses it could be applied in small tubes or applicators

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specially constructed for the case. If the affected area was extensive, one bombarded it with the radiation from an X-ray tube in addition to the local application of radium.

Case of Fibroma of the Nose—LESLIE POWELL, M.B., B.C.—Boy, aged 13, had suffered for three months from nasal obstruction, causing mouth breathing and snoring, also on one occasion from slight bleeding. Transillumination showed both maxillary antra clear. A tumour was seen through the right naris, attached posteriorly to the floor and the adjacent parts of the choana. Removal of the growth, in March 1923, was accompanied by free hæmorrhage, which soon ceased. The pathologist reported a pure fibroma. On 29th March, a recurrence on the inner wall was removed: a further recurrence was removed later, and was found to be attached to the ethmoid region. The nares now appear to be quite clear of growth.

Mr FRANK ROSE asked whether this case had been examined under an anæsthetic, in order to discover the exact point of origin of the growth. The notes of the case suggested that it was attached to and growing from the posterior part of the septum, but that was unusual. He had examined several cases, and his experience was that the growth was attached to the outer wall of the nose, not primarily to the septum.

Mr LESLIE POWELL (in reply) said that he had removed the original growth under an anæsthetic; it originated from the inside of the naris, not from the nasopharynx, and was attached to the nasal floor and septum. He removed it with scissors, inserting his fingers into the nasopharynx as a guide, since he was unable to see what he was doing. Later, he was able to see the position from which it was growing owing to a small piece left behind, and it was not from the outer wall. He thought he would try to eradicate it by diathermy.

Foreign Body removed from the Trachea of a Child, aged 6 months—H. SMURTHWAITE, M.D.—It was known that the child had swallowed the little round, flat whistle, which had become detached from her rubber doll, but no notice was taken at the time, as she seemed none the worse. Some four weeks later, the child's breathing became embarrassed and she was sent to the clinic. An X-ray examination revealed a foreign body at a level with the entrance of the left bronchus. The smallest sized bronchoscope was inserted and the whistle was plainly seen, but could not be extracted with the forceps at hand because they obstructed the view. However, an improvised instrument was made and the foreign body successfully removed.

Dr IRWIN MOORE said that the successful removal of this foreign body in so young a child demonstrated the principle that Chevalier Jackson had so often emphasized, namely, that in removing foreign bodies the operator should not restrict himself to any one instrument, or method, but should carefully consider the problem of extraction which presented itself, and

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devise the best means to suit each particular case. He (the speaker) warned members of the danger of using hooks for extracting foreign bodies from the lungs, and referred to an experience which he had shared with Sir St Clair Thomson, and recorded by him. During an attempt to loosen, with Killian's hook, a tooth accidentally inhaled and firmly impacted in a secondary bronchus of a child, the hook had caught in a bifurcation beyond the tooth, and all efforts to extricate it had failed. After a considerable time of great suspense and anxiety, the hook had to be torn out of the lung, fortunately causing only slight traumatism and no after symptoms, the tooth being later successfully removed by lower bronchoscopy. What might have happened if a vessel in the lung had been torn can be conjectured. Realising the dangers of such hooks, with curves greater than a right angle (such as Killian's and the one now shown), he had designed a number of probes and hooks which could be safely employed in the lungs, and these had been included in his armamentarium. Another interesting case, not yet recorded, in which he was consulted by a colleague, exemplified the importance of dealing with every foreign body as a mechanical problem. An adult male patient, with an old stenosed syphilitic larynx, wearing a tracheotomy tube at night and a vulcanite obturator by day, accidentally aspirated the tracheal portion of the obturator (which had become separated from the neck shield through loosening of the screw) into a secondary bronchus, where it had become firmly impacted, point downwards, presenting to the bronchoscope the circular base, with a diameter greater than the possible opening of any forceps, so that all had failed to grasp it. A long probe had been immediately made with a screw thread corresponding to the screw still attached to the obturator plate, and by passing this probe through the bronchoscope and screwing it into the worn hole in the obturator, it was possible to withdraw the foreign body.

Mr SMURTHWAITE (in reply) said that he had carefully considered what might happen in the use of a hook in the air or food passages. It would be seen that in the instrument shown, the hook was blunt and could hardly do damage to the tissues. He had practised beforehand with this instrument by removing from a rubber tube a foreign body similar to the one in this case.

Case showing Results following the Accidental Swallowing of Sulphuric Acid in a Patient with Syphilitic Laryngitis —C. GILL CAREY.—Male, aged 56, first seen in July 1922, complaining of hoarseness of six months' duration. With some difficulty a view of the larynx was obtained. The greater part of the right cord was occupied by a deep ulcer with sharply defined edges; on the posterior third of the left cord there was a small, smooth swelling. Wassermann reaction strongly positive. In October 1922, while under treatment for his laryngeal condition, he accidentally swallowed some sulphuric acid. Within a month of the accident he began to experience difficulty in swallowing, and when seen again he could only swallow fluids. Œsophagoscopy showed scarring of the hypopharynx and a fibrous diaphragm occluding the right half of the œsophagus about 2 cm.

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below the cricoid. Dilatation was effected through the œsophagoscope. Improvement in swallowing followed, but subsequent dilatation by the passage of bougies was unsatisfactory owing to the frequent impaction of the tip in a cul-de-sac at the side of the stricture. Dilatation under vision was therefore induced on several occasions, with some improvement. In spite of energetic antisyphilitic treatment, including six injections of arseno-benzol, very little change took place in the larynx. Moderate stridor and dyspnœa on exertion were always present. On 24th February 1923, œdema of the glottis followed the passage of a bougie and a tracheotomy had to be performed, since which the ulceration has been steadily healing, but the airway is poor. Large bougies can now be passed through the œsophageal stricture, but there is still moderate dysphagia. Suggestions as to further treatment of the larynx and œsophagus are invited.

Dr WYLIE suggested the local application of a solution of copper sulphate so as to reduce the cicatricial tissue in the larynx. He did not think it was possible to dispense with the tracheotomy tube.

Swelling in the Nasopharynx on the Right Side, displacing the Soft Palate downwards.—W. M. MOLLISON, M.Ch.—Female, aged 23. Pain in the right ear commenced a year ago, for which, two months later, she was treated at Golden Square Hospital. A month later the pain spread to the right side of the face. Removal of adenoids, four months afterwards, relieved the pain in the ear for a time, but the pain in the face remained. The patient was first seen at Guy's Hospital, by exhibitor, in March 1923, still complaining of severe pain in the right side of the face and in the right ear, with some deafness. The swelling in the nasopharynx was then observed. Wassermann reaction positive. A portion of the growth removed was microscopically reported to be sarcomatous.

Mr T. B. LAYTON (in the absence of Mr Mollison) said that advice was asked as to what should be done. Sir Charters Symonds had seen the case, and advised that the pathologist's report should be ignored and the case treated as one of syphilis.

Sir JAMES DUNDAS-GRANT said that the enlarged gland made the case appear worse than it really was; he did not think the enlargement was connected with the disease in the nasopharynx, but believed it was caused by a septic tonsil, which should be enucleated.

Two Cases of Paralysis of the Left Vocal Cord and Left Half of the Palate—Sir JAMES DUNDAS-GRANT, K.B.E., M.D.—Male, aged 32, suffering from neurasthenia, developed hoarseness about a month ago. Examination revealed paralysis of the left vocal cord and left half of the palate. Inquiry elicited the history of a primary syphilitic lesion a year ago, followed by eruptions. The patient is

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being treated for the specific disease at a special hospital. The laryngeal condition is in all probability an early syphilitic involvement of the vagus, above the region of the pharyngeal branch. There is slight facial paralysis on the right (opposite) side. Taste (glosso-pharyngeal and chorda tympani) is impaired on the right side, but normal on the left. The conditions on the right side are due to suppuration in the right middle ear.

Male, aged 46, recently seen suffering from dysphagia, especially liquids. There is almost complete immobility of the left vocal cord, and there is paresis of the left half of the palate: the glossopharyngeal taste is deficient on the left side. The larynx is otherwise normal. Wassermann reaction positive. Since taking mercury and iodide of potassium for a week, the patient has felt better and has less difficulty in swallowing.

Sarcoma of the Tonsillar Region treated by X-rays after Partial Removal—Sir JAMES DUNDAS-GRANT, K.B.E., M.D., and DAN M'KENZIE, M.D.—Male, aged 67, had suffered from throat trouble since September 1920; partial removal of a sarcomatous growth was effected in November and December 1920 by Dan M'Kenzie, who referred him for X-ray treatment to Dr Robert Knox. The treatment was commenced in September 1921. In the beginning of 1922, a pale, irregular swelling was observed below the right tonsil, but in May there remained little except pale, firm fibrous tissue. When first seen the right cord was paralysed. In May 1922, the movements of the larynx were normal. In November 1922, an erythematous patch with circinate edge was observed on the right half of the soft palate, which was probably due to irritation caused by smoking, as it disappeared when the patient discontinued the habit.

Dr R. KNOX said he had already alluded to this case. The original growth was in the pharynx, and the tonsillar condition was a recrudescence. Dr M'Kenzie had operated twice upon the case, and the microscopic examination confirmed the diagnosis of sarcoma. It had been under treatment eighteen months, and the growth had disappeared under X-ray treatment. The patient was attending the Cancer Hospital for X-ray treatment, and was under the joint observation of Sir James Dundas-Grant and himself. Sarcoma was more responsive to X-rays than were other growths.

Ulceration of the Left Tonsil; Case for Diagnosis—H. BELL TAWSE, F.R.C.S. *At Meeting of Section, 3rd November* 1922.—Male, aged 25; about eleven months ago the mouth became tender; small ulcers appeared on lips, with a larger one on the dorsum of the tongue, and persisted for three months. Some carious teeth were removed, the assumption being that they were the cause of the ulcers. Six weeks later the lips and tongue had healed, but soon

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afterwards an ulcer developed on the left tonsil, and was present when first seen by exhibitor on 28th June 1922. The ulcer involved practically the whole tonsil, spreading on to the tongue, and had a punched-out appearance, the floor being covered with a yellow slough. On the middle of the dorsum of the tongue was a small, shallow, painful ulcer. No laryngeal lesions were present. A papular eruption mixed up with acne pustules was scattered all over the trunk and limbs, but this had been present for about two months.

Tertiary syphilis was diagnosed, and potassium iodide, 15 gr. t.d.s., was prescribed. (Three Wassermann tests proved negative.) No improvement in fourteen days. Mercurial inunction and novarseno-benzol injections were next tried, and potassium iodide was discontinued. Fourteen days later the tonsillar ulceration was rather worse, and numerous ulcers had appeared on the gums. Inunctions discontinued; potassium iodide again prescribed, 30 gr. t.d.s.; novarseno-benzol injections continued. Wassermann test still negative. No tubercle bacilli in sputum after repeated examinations. No lesions in the lungs could be found, nor Vincent's spirillum.

Section of piece of tonsil removed shows only chronic inflammatory changes with a good deal of fibrosis, and some infiltration of the mucous membrane with small round cells. Actinomycosis not found.

Swabs from ulcers on tongue and tonsil and cultures showed pneumococcus mucosus, micrococcus catarrhalis, and various streptococci. Glanders bacillus negative.

The dose of potassium iodide was now increased to 60 gr. t.d.s., and in three weeks the ulcer on the tonsil was almost healed. During this time the novarseno-benzol injections had been continued. Three weeks later ulceration had returned and had spread downwards, involving the entire epiglottis, which was swollen, œdematous and sloughing. The whole ulcerated area was freely cauterized with the electro-cautery, the potassium iodide was continued, and the patient was sent to the seaside. In a month's time the epiglottis was healed, and the tonsil was almost healed.

The patient was well until a fortnight ago, when the ulceration of the tonsil recurred. Two injections of autogenous vaccine (detoxicated) prepared from throat swabs were given, at intervals of one week, on the last occasion followed by very marked local reaction with abscess formation. The vaccine was discontinued. Now X-rays are being applied to the left tonsillar region, and potassium iodide, 30 gr. t.d.s., is being given.

Mr HERBERT TILLEY said that he regarded the condition as a form of tuberculosis.

Sir JAMES DUNDAS-GRANT said he thought the case was tuberculous. He had had a case in which one half only of the larynx had been involved,

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suggesting epithelioma, but he made a diagnosis of tuberculosis. The patient had disappeared, and, ultimately, had been sent to the cancer hospital. He (the speaker) had again seen the patient, and had removed a portion of tissue from the left side of the epiglottis and found that it contained giant cells, although there had been no pulmonary signs, and no tubercle bacilli had been found in the sputum.

Mr BELL TAWSE (in reply) said he regarded the condition as a mixed infection of tubercle and syphilis. He would report further.

At Meeting of Section, 2nd December 1922.—Patient was again shown to the members, as there had been a new development in the case. A large ulcer, covered with a whitish slough, had appeared on the anterior pillar of the fauces, and was spreading on to the adjacent part of the palate.

Sir JAMES DUNDAS-GRANT said that the character of the ulceration and its situation recalled the self-inflicted injuries occasionally encountered during the war.

Mr C. A. PARKER (President) said that the ulceration had extended enormously since last Meeting, and the epiglottis was now considerably involved. It was an interesting case, and presented considerable difficulty from the diagnostic point of view.

Mr J. F. O'MALLEY asked whether the extension of the ulceration was spontaneous, or if it was a result of a portion having been removed for sectioning?

Mr BELL TAWSE (in reply) said that the ulceration on the pillar was spontaneous. The sectioned portion of the epiglottis and tonsil did not help the diagnosis. He believed it to be tubercular.

2nd May 1923.—The day after the meeting on 2nd December, the patient caught cold and became very ill, with a temperature of 104° F.: the palate was fiery red, yellow spots appeared on the swollen right tonsil, the sloughing area on the left pillar now involved the tonsil and extended rapidly upwards and to the middle line, affecting the uvula and much of the left palate. Ulcers appeared on the tongue, gums and lips coated with whitish deposit, the larynx was red and swollen, and some dyspnœa was present, relieved by inhalations. On the suggestion of Mr Mark Hovell, 5 c.c. collosol argentum were given hypodermically, a fall of the temperature to 102° F. followed, and the patient was more comfortable. Twenty-four hours later another 5 c.c. were given and the ulcers were freely painted with the same preparation, and the temperature fell to 99° F. Subsequent injections were given every four days until a crop of boils appeared, when they were discontinued. By this time the ulcers on the lips and tongue had healed and the swelling in the larynx had disappeared, but the ulcer on the left pillar and palate, though smaller in size and cleaner, remained much as before. The left tonsillar ulcer had healed and the epiglottis looked clean and healthy. On 1st January 1923, the temperature

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again rose to 100° F., and the patient developed an acute right follicular tonsillitis. Injections of 2 c.c. collosol argentum were resumed, and in forty-eight hours the temperature was normal. It rose again for twenty-four hours, then remained normal for six days. A further twenty-four hours' rise of temperature to 100° F. was followed by several weeks of normal temperature. Injections were discontinued on 20th January. As the ulcer on the left pillar and palate persisted—neither improving nor getting worse—he was sent to the Radium Institute for radium treatment. X-rays showed old, but quiescent, tubercular disease in the bronchial glands and lungs, and the opinion was held that the epiglottis was tubercular. The patient was now sent into the country to live in the open air, to eat as much as he could, and to take cod-liver oil. In six weeks the ulcer had completely healed, and there was no active lesion in the mouth, pharynx, or larynx. The patient has remained well ever since. The diagnosis, therefore, remains undecided by all laboratory tests, but clinically, the case would appear to be one of tubercular ulceration of the left tonsil, palate, and epiglottis

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