SOCIETIES' PROCEEDINGS

ROYAL SOCIETY OF MEDICINE—SECTION OF LARYNGOLOGY.

December 3, 1926.

President—ANDREW WYLIE, M.D.

Foreign Body removed from Right Bronchus—FRANK ROSE, F.R.C.S.—A metal collar stud was removed from the right bronchus of a man twelve years after inhalation. Bronchiectasis had developed.

Mr Rose said that the case had been under the care of Mr J. E. H. Roberts, and he (the speaker) was merely called in to remove the collar stud. Its presence was not suspected until it was discovered by X-rays. The patient then remembered having swallowed it twelve years earlier. The chest symptoms had developed slowly after the accident, and when they had reached a severe stage, the chest had been examined by X-rays, but the stud had not been seen and a later skiagram had also failed to show it, but at a third X-ray examination the collar stud was found. It was easily located at the operation; it was black, and was so deeply embedded in granulations that its edge could not be seen. The instrument with which he (Mr Rose) had tried to grasp it had slipped three times; he then tried a different grip, and it was successful. Owing to the right phrenic nerve having been divided, the foreign body remained almost stationary, and that fact probably rendered the extraction easier.

Mr HERBERT TILLEY asked whether the patient had clubbed fingers or toes. The most illustrative case of this kind he had seen in a bronchiectatic patient who "swallowed" a mutton bone, which he (the speaker) removed. There was a history of more than three years of cough following the accident, and the man had become very emaciated. Within six weeks of the removal of the bone eleven pounds had been gained in weight. The case was published in the *Lancet*, 22nd April, 1911.

Mr A. J. WRIGHT asked whether these cases were really as rare as was supposed, or were not some of them overlooked. The latter seemed likely, in view of the reports from America.

Dr IRWIN MOORE said the rarity with which a collar stud accidentally passed into the air and food passages might be estimated from the records (up to 1925) of foreign bodies dealt with at Chevalier Jackson's Clinic in Philadelphia. Out of a total of 1400 foreign bodies there had been fourteen collar studs, of which two had been impacted in the larynx, four in the bronchi and eight in the œsophagus. All had been removed

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by peroral endoscopy. One death had occurred from accompanying pyopneumothorax. A short résumé of those impacted in the bronchi was of interest in connection with the case now recorded.

(1) Patient, aged 18; in right stem bronchus ten years; fixed in fibrosed area below stricture; extraction; time occupied, one hour. Patient in perfect health one year later.
(2) Patient, aged 46; in left stem bronchus twenty-six years; lying in abscess below fibrous tissue occluding bronchus; extraction; time, thirty-five minutes. This was the longest sojourn of any foreign body removed through the bronchoscope.
(3) Patient, aged 14; lead collar stud in left inferior lobe bronchus, ten years. Stricture, granulations; extraction in 11 minutes 2 seconds; stud firmly embedded in granulations.
(4) Patient, aged 7; admitted moribund with left pyopneumothorax. One lung collapsed, and at least one-fourth of the other lung out of service, leaving only three-fourths of one lung with which to breathe; kept alive on table by oxygen through bronchoscope. Collar stud found in an area of ruptured bronchus deep down in right lower lobe. Extraction in 4 minutes 17 seconds. Intercostal drainage of left side five days after bronchoscopy; death one week later.

Dr Irwin Moore showed the drawing of a larynx exhibited in the Museum of the British Medical Association at Bath in 1925. It had been removed from a child, aged 2 years, admitted to the West London Hospital with difficulty in breathing. The diagnosis made was diphtheria. Tracheotomy was performed and diphtheria antitoxin administered. At the post-mortem examination a collar stud was found impacted in the larynx between the ventricular bands and vocal cords.

Sir JAMES DUNDAS-GRANT referred to a case which he had shown at Bath in which a collar stud had been removed from the bronchus of a boy, having been there for about a year before it was discovered. There had, therefore, been a latent period, such as that to which Chevalier Jackson had drawn attention. Probably this was the reason the foreign body had been so long overlooked.

Mr HUTCHISON said that about sixteen years ago he had failed to extract a pencil cap from the chest of a boy aged 7. He lost sight of the boy, but two years ago he was brought into hospital with pneumonia on the opposite side. The foreign body had remained in the lung fourteen years, quite forgotten. It was accidentally discovered two years ago, still causing no symptoms.

Mr ROSE (in reply) said that clubbing of the fingers had been found in this patient. He (Mr Rose) believed that in this country cases of bronchiectasis caused by a foreign body occurred in which the foreign body was not discovered or located, and that was one reason why he showed the specimen. The bronchiectasis in this patient was steadily increasing, his health was very poor. A week after the operation no change had occurred, except a slight decrease in the quantity of sputum. Mr Roberts did not anticipate that a complete cure would result.

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Postscript.—The patient reported on 6th December. The sputum was reduced to 7 drm. in twenty-four hours, whereas before operation there had been 6 oz. in a single fit of coughing. His general health had greatly improved and he had resumed smoking.

Specimen (with Microscopic Slide) of a Parotid Tumour probably arising in the Right Supratonsillar Fossa—C. G. Russ Wood, O.B.E., F.R.C.S.—Male, aged 21, two years ago had a right peritonsillar abscess, which was opened. He did not attend hospital again until three months ago, when on examination a very hard, smooth mass the size of an orange was discovered on the same side. It could be felt behind the angle of the jaw, and there were a few enlarged glands on the same side. Under an anæsthetic the finger could only just reach the inferior pole, and when operating I was under the impression that the mass was a new growth of the tonsil, because no digital evidence of the latter could be made out after the growth was enucleated. Within a week the tonsil slowly arose from below where it had been pushed by the growth. The growth weighed just over 2 oz. Report of microscopic examination: "Mixed parotid tumour, with an unusually large amount of cartilage formation."

Dr Dan M'Kenzie said this was the third specimen of the same pathological kind presented to the Section during the last year. He considered that the prognosis was good if the tumour was shelled out complete, as in this case, and if there was no deposit in glands. In the case he (the speaker) had shown last year the patient had undergone a series of misfortunes. He had tried to shell the tumour out, but it was fixed to the ramus of the jaw, so he inserted a tube of radium with which he had provided himself. The operation was performed through the mouth, and the operation area had become very septic; septicæmia developed with a high temperature, and the patient looked very ill. He (the speaker) had then applied diathermy, which was known to destroy sepsis, and the result was good; the temperature came down, the sepsis disappeared, and the remaining part of the tumour shrivelled up. A further application of the diathermy caused the whole tumour to disappear, and up to date there was no sign of recurrence.

Mr Wilkinson said that radium had a good effect on these tumours when they recurred. Three years ago he (the speaker) had had a case of parotid tumour which had recurred after having been removed by a surgeon, and he had embedded in the growth small one-mille Curie tubes, which had caused its complete disappearance up to the present time.

Mr Jewell reminded members of a case he showed at the last meeting. The report on the tumour was that it was a mixed parotid, locally malignant. Usually these did not cause secondary growths. He had meant to insert radium but healing had been too rapid to allow of his doing so at the time. He intended, however, to do so later as the growth had extended through the capsule and was intimately adherent to the mastoid extension of the parotid gland.

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Mr E. D. D. DAVIS brought for renewed inspection a specimen he showed a year ago, that of a mixed parotid tumour which had presented in the palate in a case sent to him as one of sarcoma. There had been a small mixed tumour in the parotid gland twenty years previously, and the surgeon who removed it had burst the capsule and said it might return. If the capsule remained intact and the tumour was completely removed, recurrence was rare. It was now two years and nine months since the removal of the growth now shown and there was no sign of recurrence. (See *Proceedings*, 6th March, 1925.)

Mr RUSS WOOD said that the pathologist's report was that the tumour consisted of practically solid cartilage; radium would be useful if there was a recurrence.

Tumour of Larynx: for Diagnosis—GEORGE W. DAWSON, F.R.C.S.I.—Female, aged 58, married, gave a history of tightness of the throat beginning last Christmas; later, difficulty in breathing and laryngeal stridor. She has been treated for asthma. Wassermann reaction negative. There is a smooth, round tumour covered by normal-coloured mucous membrane, situated below the right vocal cord. Both vocal cords and arytænoids move well. Voice is normal.

Dr IRWIN MOORE said that he considered this growth to be enchondroma of the larynx, growing from the internal perichondrium. Tracheotomy should be performed, followed by splitting of the larynx, and removal of the growth. This should be done before the growth became larger.

Mr BARWELL said he also thought this was enchondroma, and that it appeared to be growing round the lumen of the larynx, as there was a swelling in the left subglottic region. He thought that removal could be effected in one operation by laryngo-fissure.

Dr KELSON remarked that no one had suggested thyroid tumour, though occasionally they occurred in this region.

Mr E. D. D. DAVIS said that this was an enchondroma similar to that in a case recorded by Mr Waggett. It had a slightly lobulated appearance, the vocal cord being just above it, and a smooth, normal-looking mucous membrane covered the growth. The growth should be attacked from the outside of the larynx; the tumour should be dissected away, the mucous membrane of the larynx being left intact. Either tracheotomy would have to be done first, or intratracheal ether used as the anæsthetic.

Dr W. JOBSON HORNE considered the condition could not be due to perichondritis, as there was such free movement of the arytænoid cartilages and vocal cords. He regarded it as a diffuse subglottic growth that would require an external operation.

Mr DAWSON (in reply) said he thought that the growth was an enchondroma. It was not quite round like a cyst and small vessels crossed its surface. He (the speaker) would pass a probe down, using cocain; he

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would do it when the patient was in hospital. He thanked Mr Davis for the suggestion that the growth should be attacked from the outside; probably he (Mr Dawson) would operate through the wing of the thyroid.

Chronic Diffuse Tuberculosis of Nose, Pharynx, Epiglottis and Larynx—C. A. S. RIDOUT, M.S.—Female, aged 54, gave a history of aphonia, long-standing; also of some previous operation on the nose twelve or thirteen years ago. She is very deaf. Nose is externally thickened and reddened. A large area of septum is destroyed with granulations present on remnant and on the outer walls of the nasal cavities. Small granulation areas are present on posterior pillars of fauces and on pharyngeal wall. Epiglottis is extensively involved by a proliferating granulomatous mass extending to the left arytænoid. The interior of the larynx is also extensively covered with granulations extending as low as the true cords. A specimen removed for pathological examination from the epiglottis shows a few typical giant cells. Physician's report shows extensive dulness, bronchial breathing and deficient air-entry on right side of chest, but no adventitious sounds. Radiograph shows enlarged glands in the thorax and infiltration of the right lung. There is also a history of old eye trouble with ulceration of the left lids. Wassermann reaction negative.

Sir JAMES DUNDAS-GRANT said that the nose should be kept as aseptic as possible, since he was sure that the primary seat of disease was there, and to the nose treatment should be mainly directed. Treatment might consist in using peroxide of hydrogen, and packing the nose so as to separate the crusts, douching afterwards and freely using nitrate of mercury ointment mixed with parolein—"Lack's fluid." The galvano-cautery should be applied to each little patch or nodulation found. Galvano-cautery punctures into the epiglottis would do good. Artificial sunlight might be applied to the body in general, but to a small area at first. Ultra-violet rays must be used with discretion; he (Sir James) had known them to be followed by considerable reaction.

Mr J. F. O'MALLEY said that he had had one striking case under observation for two years, in a child of 12 suffering from lupus of the upper gums and septum. She attended University College Hospital, where Dr A. M. H. Gray was carefully touching the gums with acid nitrate of mercury, and he (the speaker) was using the same treatment for lupus of the septum. The condition seemed to improve after each application, but the margin appeared again, and further applications had to be made. Six weeks ago ultra-violet ray treatment had been begun, and the area on the septum had now quite cleared up.

Perforation of Hard Palate—A. L. MACLEOD, M.B.—Male, aged 69, has worn a tooth-plate for years. For five years liquids and soft foods passed into the right nostril. There is a perforation of the hard palate which the exhibitor suggests is due to pressure atrophy. There is no sign of a neoplasm.

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Mr E. WATSON-WILLIAMS said that he had had a similar case three years ago, the damage to the palate having been discovered accidentally. The patient had a foul discharge from the nose, and he was asked to remove his tooth-plate, which he had not done for two years. A perforation in the palate was then seen, exactly the size of the rubber cup of the suction plate, and the bone seemed to be completely absorbed. He could not demonstrate a passage between mouth and nose.

Tumour of Upper Jaw originating in Maxillary Sinus, and Non-malignant Stricture of Œsophagus—T. B. LAYTON, M.S.—Female, first seen 22nd December, 1922, then aged 39, and eight months pregnant; swelling of left inferior turbinal bled easily, and polypoid masses occupied the middle meatus. Piece removed for section showed no evidence of malignancy. Maxillary sinus could not be washed out; opaque to transillumination. She returned in February with obstruction to the lacrymal duct, the mass rising from upper wall of maxillary sinus into orbit.

Operation by Musgrave Woodman's technique (*Journ. Laryng. and Otol.*, 1922, vol. xxxvii., p. 287), intratracheal ether, sitting up in dental chair, all mucous membrane of sinuses removed (from frontal to sphenoidal). Portion of upper jaw removed leaving palate; malar taken away according to Trotter's method (*Lancet*, 1913, i., p. 1149), periosteum of orbit cut into (to avoid growth) allowing orbital fat to herniate downwards.

One year later she sustained traumatic ulceration of œsophagus from hydrochloric acid. Treatment by gastrostomy and masterly inactivity by œsophagoscopy when ulceration was healed; top of stricture seen 4 in. below the arytænoids; a minute orifice would not admit smallest bougie: no further treatment. Swallowing gradually improved and for last fifteen months she has not used gastrostomy tube which was removed 22nd November, 1926.

She states that she can eat anything, but she has to chew well and eat slowly.

Radiographic Reports.

On 21st February, 1924, fluid opaque food temporarily arrested in upper part of œsophagus (constriction about level of cricoid), but passes through slowly and with considerable efforts of deglutition. On 29th November, 1926, opaque food passes freely down the œsophagus, but there is a narrowing at the level of the upper margin of the clavicle.

Dr G. W. NICHOLSON reported that the specimen originally removed was a squamous-celled growth of a "cauliflower" type. It consisted of folds and papillæ of a loose, vascular, inflammatory connective tissue, without remains of mucous glands or other physiological structures. The papillæ were lined with a thick layer of non-keratinised squamous epithelium. In several places, where it was œdematous, its cells were

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separated from each other by fluid. The intercellular bridges of the prickle cells were lengthened and greatly accentuated in these places. Although the epithelial processes, which were generally broad, extended deeply into the stroma, they were sharply defined and showed not the slightest signs of infiltration. Even when they were narrow their definition was perfect. They were now nearly compressed by the growth of contiguous connective tissue papillæ or granulations. The mode of growth of the epithelium was everywhere confined within physiological limits, since it merely extended between and formed a covering for granulations.

The tumour of the antrum, the structure of which was identical, formed a lining for the sinus and was separated from its bony wall by thick periosteum. Here again there were no signs of infiltration of epithelium.

Pieces removed from other parts of the nose and the sphenoidal sinus showed nothing beyond chronic inflammation and hypertrophy of the mucosa, with catarrhal changes of the mucous glands. In places where the surface epithelium was present it was of the physiological columnar-celled type, though more or less extensively inflamed.

The specimen was a squamous-celled papilloma with rapid but strictly local and expansive growth. It appeared to have originated by continued irritation of one of the patches of squamous epithelium that were produced with great frequency in chronic inflammations of the nose.

Mr MUSGRAVE WOODMAN said that some years ago he (the speaker) had studied the pathology of these lesions with the late Professor Shattock. Many of them were clinically classified as epitheliomata, but they showed columns of cells like a scirrhous carcinoma. Professor Shattock would have considered the present case to be one of epithelioma. Another group was that of endothelioma, in which were large vacuolated cells. He (Mr Woodman) asked what precautions Mr Layton had taken to support the eye after these operations. If one left the roof of the antrum or a little bridge of bone under the eye, that was sufficient support, and if that bone were taken away and the periosteum left, there was still some support; the eye fell a little afterwards but gradually recovered its position. But if one had to remove the periosteum and the fat dropped through, the eye fell badly, and in several of his (the speaker's) own palate-cases it had to be subsequently excised. There were two methods of overcoming that. One was the immediate formation of a sling beneath the eye by a strap taken up from the internal pterygoid muscle; the difficulty was in fixing it, as there was not a very good hold on the nasal side. The other method which he (the speaker) had tried was one suggested by Mr O'Malley, namely, to pack the whole cavity with gauze steeped in bismuth and iodoform, and leave it in position for eight days. He (Mr Woodman) had had a patient with double epithelioma of the upper jaw, and he had had to remove both upper jaws, including the palate; he adopted the latter method of dealing with the eye, temporarily sewing back the soft tissue of the palate in place, leaving it in situation eight days. When the packing was removed the patient's eye was in the normal position.

Mr SOMERVILLE HASTINGS said that he had had many cases similar to this, and the pathologist at Middlesex Hospital called them endo-

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theliomata. The speaker regarded the specimen now under the microscope as a typical endothelioma. The report might be that there was no evidence of malignancy, but tumours of this kind tended to recur. Still, when they were thoroughly removed there was a certain proportion of excellent results. Two cases in which the growth was removed ten years ago and seven years ago were still well. In one of these cases there had been recurrence, but, after a further removal of growth, the patient had become well and had remained so.

Dr IRWIN MOORE asked what was meant in the notes by the words: "All mucous membrane of sinuses removed from frontal to sphenoidal," also whether this case could not have been dealt with by a Moure's operation, with much less destruction to the face. Was it an upper jaw tumour, or an antrum tumour?

Dr JOBSON HORNE said that in view of the report as recorded in the notes of the case that there was "no evidence of malignancy" he (the speaker) thought the technique employed in the operative treatment had been unduly severe.

Mr LAYTON (in reply) said he regretted that no one had discussed what he thought was the more important side of this case, namely, the wonderful recovery from the traumatic stricture of the œsophagus. This was his (the speaker's) chief reason for showing the case. If ever he had a similar case he would have a gastrostomy performed at once to rest the œsophagus, and would not pass an instrument of any sort until he felt sure that all ulceration had healed. Remembering vividly the minute orifice at the top of this stricture he would never despair of getting back good swallowing power if only the œsophagus were left alone.

With regard to the tumour of the upper jaw, he would ask Dr Nicholson to write a full report on all the sections. He (the speaker) was not greatly concerned with the pathological report; *clinically* this tumour was malignant, and he thought the patient was well rid of it. In answer to Dr Jobson Horne, while under observation the tumour was growing rapidly, and any operation but this would have been insufficient; he had left the important part of the upper jaw—the hard palate; the rest had to be removed as the tumour had already penetrated through the wall of bone into the orbit. Nothing had been done to support the eye. It would have been unwise to leave even the fascial sling beneath the eyeball. This case showed how small was the deformity even when the cut went into the orbital fat. In earlier days this woman would probably have had her eyeball excised with an exenteration of her orbit. As it was, the falling down was very slight and she had binocular vision.

Orbital Abscess and Ethmoiditis—T. B. LAYTON, M.S.—Boy, aged 14, admitted on 17th September, 1926, with swelling of upper eyelid and pus in middle meatus; had high resection of the middle turbinal on the same evening under local anæsthesia.

On 18th September under general anæsthesia an incision was made and pus found between the bone and orbital periosteum. There was

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no evidence of osteitis either of the roof or inner wall of the orbit. The lacrymal bone was removed and the mucous membrane of the ethmoidal cells bulged into the orbit. No pus was present in nose after fourteen days.

On 8th October a high operation on septum was done under local anæsthesia to give more space in middle turbinal region; there is now some soft swelling in mid-turbinal region. This can be pushed aside to view the middle meatus.

This is shown as a case in which the infection left the nose through the lacrymo-ethmoidal suture. There was no disease of the frontal sinus.

Mr Layton also showed a girl, aged 19, who had had diphtheria and septic scarlet fever. During the course of these, orbital œdema arose with pus in the middle meatus and a definite rounded swelling was palpable arising from the inner wall of the orbit. The only reason why an external incision had not been made in this case was that the patient was too desperately ill even to explore it with a syringe. By the time she was well enough to have anything done the whole condition had cleared up. Mr Layton said that he had also hoped to show a girl, aged 14, who had had swelling of the upper eyelid with pus in the middle meatus, in whom the high resection of the middle turbinal resulted in the whole condition clearing up. He had not, however, been able to get in touch with her again.

Mr WRIGHT asked whether, in Mr Layton's experience, an orbital suppuration was practically always due to nasal infection. He (the speaker) thought it was. Secondly, why did these cases occur almost entirely in children! Thirdly, with what frequency was the ethmoid the cause of the trouble in comparison with the frontal sinus, and what place in the treatment was occupied by an internal operation through the nose?

Dr LOGAN TURNER said these cases exemplified two clinical types of orbital complication and methods of procedure. If the surgeon could diagnose a purely œdematous condition in the orbit, he was justified in at first adopting an intranasal operation. But if pus had already formed in the orbit, interference must be from outside. The cases illustrated these two routes of approach. Some held that orbital abscess could be cured by an intranasal operation. That might be possible if the disease had already made a large communication through the os planum, but one could not tell whether destruction of the bone had taken place. Mr Layton had said that the infection, in one, passed through the lacrymo-ethmoidal suture. He (the speaker) thought it more likely that the infection had spread either by the veins from the deep mucosal layer of the ethmoid or by osteoclastic destruction of the bony wall.

Mr MUSGRAVE WOODMAN asked for advice upon a case now under his own care. Six weeks ago the patient had been sent to him, the complaint being that the right eye was "blown out." There was a slight increase of temperature, with much pain. He (the speaker) did not know whether

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the exophthalmos was caused by pus or by air. He employed ichthyol externally, and packed the nose with 20 per cent. cocain. In three days the patient had recovered, and nothing abnormal was seen in the nose. The previous day, however, he had returned again, with the same complaint, but not so severe. A skiagram did not show anything abnormal in the sinuses. What treatment ought he (the speaker) to adopt?

In a recent epidemic at Repton School he had had two cases of retro-orbital suppuration, and in both cases the eye was "blown out." One boy had a temperature of 105° F., with rigors. In one case pus was discharged from the frontal sinus owing to a perforation far back in the orbit, and in the other in the lateral plate of the ethmoid; it had burst through a hole $\frac{1}{4}$ in. in diameter. Operation was carried out externally and both recovered.

Mr N. S. CARRUTHERS said that during the last three years he had seen eleven cases of orbital œdema of intranasal origin. In seven of the cases he had found pus in the sphenoidal sinus. In two of the cases the treatment had simply been drainage of the sphenoidal sinus; and in the other seven cases the middle turbinate bone was removed in addition. All the patients had recovered without external incision and, in his (Mr Carruther's) experience, sphenoidal suppuration was a more common cause of orbital œdema than either ethmoidal suppuration or frontal sinusitis. He asked if anything had been done in Mr Layton's case to investigate the condition of the sphenoidal sinus.

Mr RIDOUT said that in a case of his own there had been external strabismus, with a high temperature and pus in the middle turbinal region. He (Mr Ridout) had broken down a few ethmoidal cells and evacuated a large abscess. The eye fell back, and the patient had normal vision within a few days. If the intranasal operation could be performed, and the patient kept under careful observation, that was the best thing to do.

Mr GRAHAM BROWN said he had had two cases of acute frontal sinus suppuration, with orbital inflammation, and he had adopted conservative treatment, removing the anterior end of the middle turbinal, canalising the fronto-nasal canal, and withdrawing pus. In each case the condition had cleared up entirely. He (Mr Graham Brown) doubted whether it would have done so if there had been pus in the cellular tissue of the orbit; in that case an external operation would have been necessary.

Mr J. A. GIBB said that a patient, aged 82, had been referred to him by his ophthalmic colleague suffering from retrobulbar neuritis, with fixation of the eyeball and proptosis; she could only move the eye a little outwards. He (the speaker) had removed the ethmoid by his usual method, taking away half the middle turbinate and working outwards and upwards until he engaged the soft tissues of the orbit. The condition had cleared up. These proptotic conditions were due to paresis of the muscle, and as soon as that was removed the eyeball regained its normal position. It had been his (Mr Gibb's) custom to operate for these conditions in the acute stage, but at a recent meeting of the Section this procedure had been deprecated. Since that meeting he had had a severe case in a boy, aged 11, resulting from a blow on the nose. The temperature on admission had been 102° F., and he had postponed operation until

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it had come down. At the end of a week the temperature was nearly normal, and as it was reported that the boy had had a fit it was decided to operate. The external route was adopted, the frontal sinus was opened and the ethmoid removed, drainage being carried out through the nose. Some time afterwards, as there was evidence of mental hebetude and as there was papillœdema on the affected side, it was decided to explore the frontal lobe for pus. This was done through the outer angle of the frontal sinus and a large abscess was evacuated. Drainage was hampered by repeated pocketing. Eventually the lateral ventricle was entered, and drained for three days; first pus and then cerebro-spinal fluid draining away. The patient became comatose, but when the tube was removed, he became conscious, relapsed and died. He (the speaker) now thought that he ought to have operated in the acute stage and not to have waited, and he did not intend to delay in any future case. Recently he had had a case of acute sinusitis, with œdema of the lids, in a child aged 2 years. He had done the internal operation, removing the ethmoid, until he reached soft tissue, and also removing abundant adenoids. The temperature decreased and three weeks afterwards the child had left the hospital completely cured. He (Mr Gibb) was certain that in these acute cases operation should not be delayed.

Mr W. T. GARDINER (referring to Mr Layton's case) said that a better line of treatment would have been to give a general anæsthetic and remove the middle turbinal in the first instance. He thought that the orbital abscess had been caused by Mr Layton's incomplete operation.

Mr VLASTO said he had been surprised by some of the opinions they had heard stated. In cases of definite acute fronto-ethmoiditis associated with orbital inflammation, he (Mr Vlasto) could not entertain the idea of any other treatment than an external operation. Any other form of treatment he regarded as merely playing with a very dangerous condition. No doubt cases would be reported from time to time in which the inflammation had subsided as a result of removal of a portion of the middle turbinal, but in his opinion this was no justification for the method of treatment recommended. He could not agree with Mr Layton that a differentiation between inflammatory œdema and pus formation was possible or even useful. In his (Mr Vlasto's) own case, there had been nothing to show the extent of the pathological process, and yet the frontal sinus was full of pus and the floor was necrosed and perforated. Any other than an external operation would have been fraught with the most serious consequences. He had had two other similar cases which had been treated by the method advocated by Mr Howarth. Recovery had been complete, and the cosmetic result good.

Mr LAYTON, in reply to Mr Wright's four questions, said: (1) He thought these orbital swellings were always due to disease of the sinuses. The term orbital cellulitis was wrong, since an actual inflammation of the orbital cellular tissue was very rare. The condition was an intra-orbital extraperiosteal œdema followed by exudation of pus with abscess formation. (2) He (the speaker) had himself been puzzled at the relative frequency with which these cases occurred in children. He suggested

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that one reason might be the great difficulty of diagnosing sinus suppuration at this age. It was almost impossible to get a child to submit to the manipulations of washing and mopping the nose until it was clean, yet by this method alone a sound diagnosis of sinus suppuration could be made. As a result we were liable to overlook the condition until the orbital complication had occurred. He did not know that he had ever accurately diagnosed suppuration in the cells in children until the disease had left the cells for the surrounding parts. He did not suggest that this difficulty was the only cause of the relative frequency of the orbital complications in children; there were anatomical differences between the child and adult, the exact significance of which had not yet been worked out. (3) One of his reasons for showing his case was to lay stress on the ethmoid as a cause of orbital complications. Personally he thought that the ethmoid was more frequently the cause than the frontal sinus. He found that the majority of the profession—students, practitioners, ophthalmologists, and general surgeons—jumped to the conclusion that there was frontal sinus disease as soon as they saw an orbital swelling. He presumed that they had learnt to assume this from rhinologists or their writings; but he thought the assumption was wrong. (4) In this question Mr Wright had touched upon his (Mr Layton's) other reason for showing his case. He wished to put forward the view that with these cases, as with those without orbital signs, intranasal treatment was the course to be followed, and that external operation, if any, should be minimal. He thought Dr Logan Turner had summed it up correctly when he said that a case with œdema might get well without external incision, but that when an abscess had formed it would not do so. He (the speaker) wished, however, to urge that in a case where it was not known whether pus had formed or not, intranasal drainage should first be employed. If œdema only were present this treatment would be sufficient. If pus were present, the drainage would cause the œdema to subside, and the abscess could be incised under better conditions than across a swollen œdematous area.

Mr Ridout had referred to an orbital abscess drained through the ethmoidal region with success; he (Mr Layton) thought that such a case must be exceptional. Mr Graham Brown's case supported his view; apparently the pus was in the frontal sinus and œdema only was in the orbit. In answer to Mr Gibb he did not say he would always refrain from the external operation when he first saw the case. It depended upon a clinical assessment of the severity of the case, upon having the patient in such a position that he could be watched from morning to night, and upon getting efficient intranasal drainage. He claimed that it was safe to wait for twenty-four to forty-eight hours in the majority of cases. When the abscess was opened he did not think it necessary to touch the bone unless the carious spot was seen through which the disease had spread. This brought him to Dr Logan Turner's question about the route by which the inflammation had spread from sinus to orbit. He (the speaker) did not know that it had spread through the suture, he believed that in many of these cases this was the route; it was a point upon which we needed observations. He had removed the lacrymal bone to procure drainage between orbit and nose, and suggested it as a con-

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servative method where osteitis could not be recognised by the naked eye. He had not observed sphenoidal sinusitis with œdema of the orbit, he knew of specimens in which this sinus passed out into relation with the roof of the orbit, but he suggested that in Mr Carruthers' cases there might have been pyosinus of the sphenoid and the orbital complications secondary to posterior ethmoidal cells. In either event the results supported his (Mr Layton's) contention. In reply to Mr Gardiner the greater part of the middle turbinal was still present in this child; that was where the art came in! In the high removal of the middle turbinal the piece removed was very small, no larger than the end of a pencil, just large enough to be gripped by the end of a Luc's forceps; but it was the only bit that mattered, and the removal of any other bit not only was unnecessary, but was not effective. He was entirely opposed to the removal of the whole middle turbinal. He thought that this was an operation fraught with great potential risks. Dr Logan Turner, in his lecture at the Central London Hospital two months ago, had "given them furiously to think" on this point, and he (the speaker) tried to avoid the main part of this process on every possible occasion. In conclusion he (Mr Layton) wished to point out that the case shown by Mr Vlasto was in no way analogous to those shown by himself His cases were examples of acute disease; Mr Vlasto's was a case of orbital complication of very chronic disease. He (the speaker) would never have advocated refraining from an external operation in such a case.

Fibroma of the Left Vocal Cord—H. J. Banks-Davis, M.B., F.R.C.P.—Female, aged 60, was admitted to hospital on 30th November, 1926. For a period of about nine weeks previous to admission she had complained of hoarseness and a feeling of dryness in her throat; there was no actual pain, and she was able to swallow satisfactorily.

Examination showed a small pedunculated fibroma of the left vocal cord, which appeared to be preventing complete adduction of the cords.

Operation.—1st December, 1926. Under general anæsthesia the larynx was inspected with a Brünings' bronchoscope. The tumour was easily seen on the left cord, but as it was extremely movable it was very difficult to secure. The greater portion was removed and the cords then adducted normally.

Case of Laryngitis: ? Tuberculous—A. Macleod, M.D.—Male, aged 40, was first seen on 10th November, 1926, complaining of pain on swallowing of three weeks' duration. A piece removed from the right anterior pillar of the fauces shows a typical tuberculous lesion full of epithelial cells and giant cells. A fair number of tubercle bacilli have been demonstrated in it. The patient now had definite laryngitis.

Wassermann reaction negative.

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Royal Society of Medicine

Ulceration of Epiglottis: for Diagnosis—L. GRAHAM BROWN, F.R.C.S.—Female, aged 71, suffered from a burning sensation in the throat with somewhat painful deglutition at intermittent periods since July, 1926.

Tip of epiglottis shows a superficial ulceration. Wassermann reaction negative; chest examination for tubercle negative; organism of Vincent's angina not found; patient denies any history of trauma. Ulceration varies in extent at different intervals; at one time, in September, 1926, disappearing altogether.

Mr HERBERT TILLEY suggested that the condition might be pemphigus. In the spring of this year he had seen a similar case, though more extensive; there were blebs inside the cheek and on the tongue, on the floor of the mouth, and on the free portion of the epiglottis. Scrapings from the ulcers were taken, and streptococcal organisms were found. Vaccine was given, but without result; at intervals the condition largely cleared up leaving only one or two ulcers; the patient had then gone to a hospital on the south coast, but the lesions had returned, and she had died later on from what appeared to be general exhaustion.

Mr G. W. DAWSON said that the patients in these cases lived longer than was usually believed. He had shown a case in which the condition was very extensive, embracing tongue, cheeks and larynx; and the patient had lived for years, and might even be alive now. It was very unusual to see pemphigus limited to the epiglottis.

Dr BROWN KELLY said that the lesions were compatible with pemphigus. It might be a long time, even some months, before blebs chanced to be seen in these cases. Stress had been laid on the bacteriological examination by some, but he did not think that it gave positive information. In the course of years the eyes might be affected and the patient become blind, but death might not occur until years afterwards; the patient in a case of his own had lived for ten years. Arsenic seemed to have the best effect on the disease.

Sir JAMES DUNDAS-GRANT said that the lesions in this case reminded him of the white aphthous spots he saw recently on the palate of an elderly man suffering from chronic tuberculosis. There was intense pain. There was also tuberculosis of the epiglottis. The spots had disappeared after being brushed with an emulsion of anæsthesin and menthol, and the pain had ceased on insufflation of anæsthesin and orthoform.

Dr W. H. KELSON said he thought this condition might be herpes; it had quite disappeared once or twice, and the smarting pain had ceased simultaneously. The appearance was that of herpetic vesicles which had broken, and this was in a position where it could easily occur and be irritated.

Mr GRAHAM BROWN (in reply) said he had had the case under observation every fortnight since August, 1926, and his impression was that the lesion was herpetic, a diagnosis which he was interested to hear Dr Kelson support. On the other hand, Sir St Clair Thomson agreed

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with Mr Tilley that the condition was one of pemphigus, though this was a very rare site for the disease; the former had suggested a course of salvarsan treatment with appropriate diet, tonics and rest in hospital.

Tumour of Submaxillary Gland—W. H. JEWELL, M.D.—Girl, aged 12, gave a three years' history of swelling in the right submaxillary region. The swelling was soft, elastic and painless; during the last six months it had increased in size; the size varied slightly, but the variations had no relation to the taking of food. X-ray examination reveals no calculus.

Mr LAWSON WHALE said he thought the tumour was a cystic hygroma.

Mr G. WILKINSON said that if this was a branchial cyst it would be difficult to remove, and an exploratory puncture would clear up the doubt as to its nature.

Mr JEWELL (in reply) said that he intended to remove the tumour. Should it prove to be a submaxillary gland tumour he would expect it to be one of those arrested developmental tumours found in the salivary glands, as some support is given to this suggestion by the fact that the patient has a congenital cataract.

Double Recurrent Paralysis of the Vocal Cords—W. M. MOLLISON, M.Ch.—Female, aged 40, had the left breast removed for carcinoma three years ago. After operation (June, 1923) patient remained well until January, 1926, when the following symptoms simultaneously developed: (1) Hoarseness, amounting to almost complete loss of voice; (2) Regurgitation of fluids on attempting to drink; (3) A sensation as of having "a bone in the throat" on attempting to eat.

In May, 1926, the patient had a miscarriage.

In August, 1926, vomiting became a feature of the condition. The patient vomited the whole of a meal about 10 or 15 minutes afterwards. At this time she became breathless on exertion—*e.g.* after vomiting. During the past three months (from September to December, 1926) there has been no vomiting. Eating and drinking have been normal, but after a meal there has been continual regurgitation of mucus into the mouth. The patient has gained weight in hospital. There is still breathlessness and the voice is very hoarse.

For the last six weeks the pupil of the left eye has been smaller than that of the right.

Mr TILLEY asked whether the right cord was now in the cadaveric position, and, if so, how long was the interval between the recognition of abductor and that of adductor palsy?

Dr BROWN KELLY said this was not a complete recurrent paralysis; both cords were in the cadaveric position and could not be abducted,

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but both could be partially adducted posteriorly. The left sympathetic also appeared to be affected, as the pupil on that side was small.

Dr JOBSON HORNE said he thought there was a definite movement of the right cord but none of the left.

Mr MOLLISON (in reply to Mr Tilley) said that the interval about which he had asked was about three or four weeks.

Acute Frontal Sinusitis associated with an Orbital Abscess—M. VLASTO, F.R.C.S.—In 1925, a patient, an adult male, had a large number of polypi removed from both sides of the nose. The removal on the right side was evidently not complete. When seen, in consultation with Dr Varian, of Watford, in April, 1926, the patient was critically ill with an acute right fronto-ethmoiditis associated with a right orbital abscess. An external operation was performed on the lines suggested by Mr Howarth, and the patient made an uninterrupted recovery.

Case of Laryngitis: for Diagnosis—W. M. MOLLISON, M.Ch. —Male, aged 66, complained that for two years and a half his voice had been growing gradually weaker; it now remained as merely a whisper. The Wassermann reaction was negative, but he has had a course of treatment by novarsenobillon. No tubercle bacilli in sputum.

Eight months ago the left vocal cord showed the white projections still seen, but during the past few weeks the anterior two-thirds of the left cord and the whole of the right cord have become red.

Mr NORMAN PATTERSON said he regarded this as a case of keratosis of the larynx; it was much like a case he had seen many years ago.

Mr TILLEY said he thought a direct laryngoscopy should be made with the view of removing some of the white material from the cord, though, as a rule, he, personally, disliked having to depend upon a diagnosis made from a microscopic section of a laryngeal growth, and particularly so if he was suspicious of its malignant nature from a clinical point of view.

Mr O'MALLEY said that he had a very similar case three years ago, which he had regarded as early epithelioma. As the mouth was septic the teeth were all extracted. The patient had then passed from his (Mr O'Malley's) observation, and had gone into hospital under the care of Mr Cleminson, who had removed a portion of the lesion, and the report was that it was an innocent papillomatous condition. Still, he (the speaker) suspected that some day it would become malignant, and this was his opinion about this present case.

Mr BARWELL said that there was a patch of keratinisation. He thought the condition was a chronic pachydermatous laryngitis.

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