SOCIETIES' PROCEEDINGS.

ROYAL SOCIETY OF MEDICINE—LARYNGOLOGICAL SECTION.

December 3, 1915.

President: Dr J. W. Bond.

The Histology of an Angeio-fibroma of the Naso-pharynx and its important Bearing on Operative Procedures.[1]**—Irwin Moore.**—Considerable difference in opinion appears to exist as to the origin and attachments of these growths, the question of a capsule, the position of the blood-vessels and sinuses, and the best method of removal. Further confusion takes place through not differentiating them from fibrous growths originating in the nasal cavities.

The General Structure of these Growths.—They are composed mainly of a dense fibrous tissue, strands of which may be seen spreading out from their basal origin. A longitudinal section microscopically shows these fibres displayed parallel with each other, with a tendency to interlace. Scattered about and embedded between the fibres are a variable number of connective tissue cells, in some parts densely packed.

These growths also contain a large number of thin-walled blood-vessels and large cavernous sinuses.

Seat of Origin.—They arise from a broad base in the thick periosteum covered by mucous membrane which lines the roof of the naso-pharynx, a comparatively narrow and limited area corresponding to the basilar process of the occipital bone and the body of the adjoining sphenoid. They are very firmly attached to both periosteum and bone. For example, in a transverse section through the base of this growth spicules of bone were found attached to the periosteum, which interfered with the cutting of the specimen. As the tumour grows, the base increases in extent and fresh attachments arise, due either to the spreading from the original source or to adventitious attachments being formed as a result of inflammatory action. In cases reported of additional origins—*e.g.*, the margin of the internal pterygoid plate, within the spheno-palatine and spheno-maxillary fossæ—we may conclude that these were extensions from the original growth. Reference to sections through the base of the growth shows the fibrous tissue to be denser there than in other parts, and the naked-eye specimen shows the fibres disposed in lines converging from their basal origin.

The Investing Membrane.—Many authorities describe a "capsule" to these growths. They are covered by an investing membrane, which consists of the mucous membrane lining the vault, sometimes comparatively thick, but more frequently thinned away by the increasing pressure of the growth.

Fig. 4 shows a portion of the free surface of the growth with its investing mucosa attenuated and partially devoid of epithelial cells, but

[1] See Journ. of Laryngol., Rhinol., and Otol., vol. xxx, pp. 319–399.

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nothing which could be correctly described as a capsule; hence this term is misleading and is better not used. A few mucous glands may be seen a short distance below the surface.

The Vascular Supply.—Fig. 4 shows, both superficially and deeply placed, many thin-walled vessels and cavernous spaces. They are lined by a single row of endothelial cells, which are well seen in Figs. 2 and 3. Being devoid of a contractile coat and embedded in the dense fibrous tissue, these vessels do not contract when cut across. In these tumours the central portion of the growth appears to be much more vascular than the peripheral portion, and here the cavernous spaces predominate; hence the risk of dangerous hæmorrhage through cutting into or tearing the body of the tumour, well shown in Fig. 2, which should be compared with Fig. 4. In one section through the base of the growth, the fibrous tissue is denser than elsewhere, and the number of vessels, although they are of considerable size, is relatively smaller.

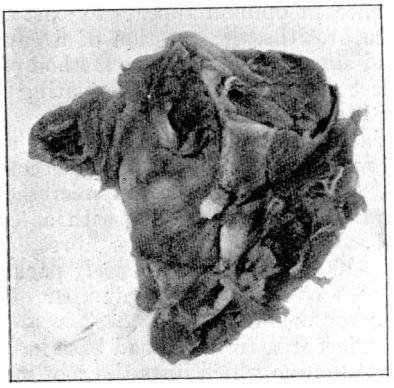


FIG. 1.—Angeio-fibroma of the naso-pharynx removed from a boy, aged sixteen. It measured 1½ in. in its longest diameter and 1¼ in. in its shortest. The broad basal attachment to the basi-sphenoid and occipital bones is shown, also its prolongation into the left naris.

Here and there a vessel furnished with a muscular wall is encountered. This is of great importance from the operative point of view, and is a guide to the position for attack.

Epistaxis.—When this case was shown on March 5, Dr. Dundas Grant[1] suggested that the growth was not very vascular, since spontaneous epistaxis had not occurred, but though generally considered a characteristic feature of these growths, it certainly does not always happen. In the earlier stages epistaxis is quite unusual. In the case shown by Mr. E. D. D. Davis[2] epistaxis was absent, as also in Dr. Peters' case,[3] shown at the Laryngological Society in 1906, and one reported by Mr. Guthrie.[4] These were all early cases. When bleeding does occur it is due to surface erosion, owing to the pressure of the growth on its investing mucous membrane. All these points require to be taken

[1] See JOURN. OF LARYNGOL., RHINOL., AND OTOL., vol. xxx, p. 320.
[2] *Ibid.*, p. 279.
[3] *Vide Proc. Laryng. Soc. Lond.*, 1905–06, xiii, p. 40.
[4] *Vide Lancet*, 1910, ii, p. 1271.

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into consideration in determining the best method for the removal of these highly vascular growths.

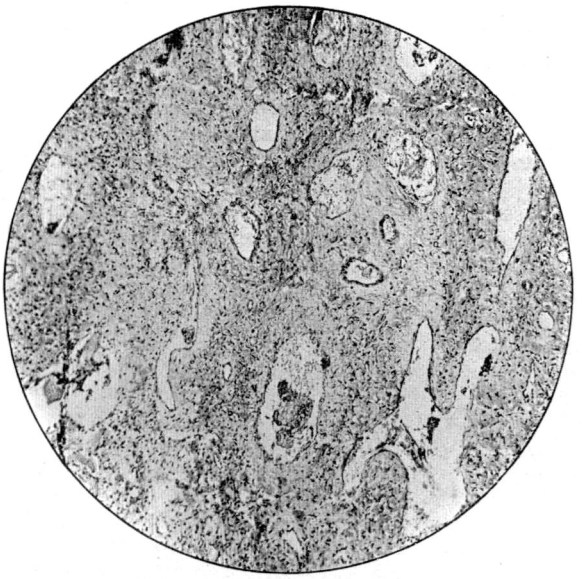


Fig. 2.—Showing the cavernous spaces lined by a single layer of endothelial cells. (Low power.)

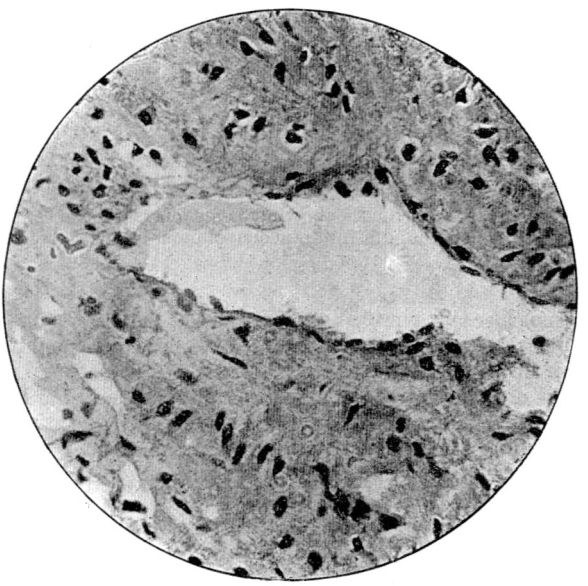


Fig. 3.—Showing one cavernous space of similar structure to those in Fig. 2, highly magnified.

Conclusions.—(1) These tumours should, in my opinion, be approached *viâ* the mouth and naso-pharynx, attacked at their base, and removed

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through the mouth. This is the route recommended by Doyen, Moure, Escat, Laurens, Lubet-Barbon, and other French surgeons. There is greater freedom of access by this route than through the nose, and since the prolongations of the growth into the nasal cavities cannot be determined from the front, the separation of the main mass from behind permits these prolongations being more easily followed up and dealt with. With the soft palate tied back by two pieces of thin rubber tubing passed through the nostrils and out at the mouth, it is astonishing the amount of room available—quite as much as that obtained by splitting the soft palate.

(2) The base of the growth and its extensions or adhesions to adjoining parts of the naso-pharynx should be peeled with the periosteum from the bone by means of sharp periosteal elevators, starting

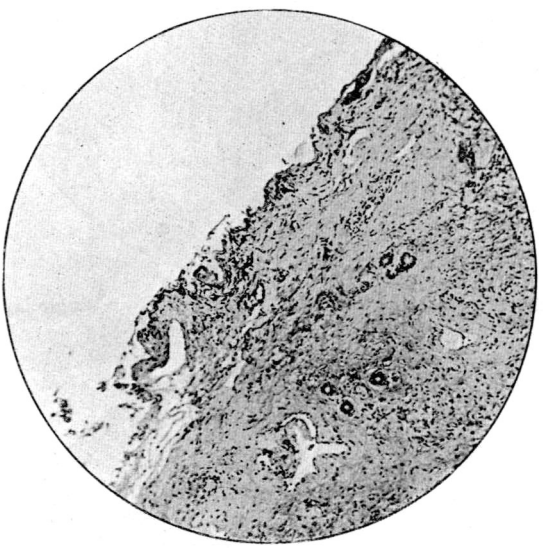


Fig. 4.—Free surface of growth showing some of the investing mucosa (the so-called capsule) and a few mucous glands, lying a short distance below the surface. (Low power.)

posteriorly in close proximity to the growth, and working round and over it as far as the choanal margin from behind forwards and from side to side. In this way the large blood sinuses in the central part of the growth can be avoided. With the patient in the hanging-head position the nasal channels are free to carry off the profuse stream of blood which pours out of the naso-pharynx, and this does away with the necessity for a preliminary tracheotomy or laryngotomy and tampon in the larynx.

(3) The growth should not be seized by forceps until its base has been detached, in order to avoid tearing into its central portion. By means of strong clamp forceps the main mass of the growth is then seized and removed by evulsion, tearing away with it the nasal of other prolongations which extend into the adjoining cavities; these are usually much less firmly attached than the base. If, however, they are too firmly adherent to be torn away, curved periosteal elevators passed

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through the mouth into the choanæ, or through the anterior nares, may be employed to separate them.

(4) The operation should be performed rapidly and no time lost in trying to staunch the excessive hæmorrhage which invariably occurs, but which ceases spontaneously as soon as the growth and its attachments have been removed. There is no doubt but that there are few of these growths that cannot be reached through the natural passages and extracted with less danger and better results than after extensive and disfiguring operations through the face. Resort to such measures is rarely warranted, and certainly not when the growth is in the earlier stages.

Sir WILLIAM MILLIGAN: I think that Dr. Irwin Moore has indicated a very important point—viz., that these large blood-vessels are held by fibrous tissue, and are therefore unable to retract. In other words, they are canalised, and for that reason I think it is advisable, before operating, to tie the external carotid artery; it makes a good deal of difference in regard to the comfort of the operation, and if it is done immediately before operating there is no time for the setting up of a collateral circulation. I want to ask whether any members of the Section have ever had such an unfortunate accident as I had the other day in dealing with a similar case. I was operating on a boy, aged sixteen, who had a growth as big as that in Dr. Moore's case; I tied the external carotid artery and removed the growth with difficulty. The boy was put back to bed, but in twenty-four hours he became extremely weak and died. We are unable to ascertain any reason for his death; it was not from hæmorrhage, as there was so little of that. It is the only accident I have had in such a case, and I have removed a fair number of such growths. With regard to the capsule, I think the fact that these growths almost invariably recur sooner or later is one of the points which make one conclude there is no real capsule, and the microscopic section shows simply a mucous membrane covering, attenuated in some parts, thickened in other parts. As to situation, my experience has not been that they grow from the basi-sphenoid, but from the latteral wall, at the junction of the posterior and lateral walls of the naso-pharynx, in the region of the Eustachian tube. Very few of these growths are pedunculated; they have broad-based attachments, so that it is very difficult to get anything like a loop of wire round them. Mr. Guthrie a short time ago published a method of dealing with these growths by removing subcutaneously a portion of the nasal process of the superior maxilla, which gives a much better view from the front and more room for working.[1]

Dr. DUNDAS GRANT: We are indebted to Dr. Irwin Moore for having shown us so beautifully that the vascularity is chiefly in the interior of these growths rather than at the site of origin. I would recommend very strongly the mode of access to them through the nose, passing a periosteal elevator through the nasal passage. With the finger of the operator in the pharynx, one can attack the base very well, especially if they are attached as much to the inner surface of the internal pterygoid plate as to the basi-sphenoid. And we ought to distinguish these sessile growths from those which have their origin in the antrum of Highmore, and which require an adventitious adhesion and do not grow from the naso-pharynx, though they appear to do so. For the latter cases a different method of treatment has to be carried out—namely, through the

[1] See JOURN. OF LARYNGOL., RHINOL., AND OTOL., vol. xxx, p. 427.

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antrum. They are apt to be lumped together with the others in compiling statistics, and formulating treatment too. It was instructive to hear what Sir William Milligan had to tell us, and it is, perhaps, because so few of us have had any number of such cases that a similar accident has not come before us. One does not know whether delayed chloroform poisoning or some similar coincidental misfortune may have had something to do with the death.

Mr. W. Stuart-Low: I have had a number of these cases which I have shown here, and they were all successful. I lay great stress upon getting the soft palate out of the way; if this is done it facilitates the speed of the operation. This is best carried out by splitting it freely, and then stitching it up after finishing the operation. The easiest and most effective method of controlling the hæmorrhage consists in pushing a sponge-holder carrying a small sponge into each nostril. As the growth is displaced the assistant pushes these sponges into position, and so arrests the bleeding.

Mr. Herbert Tilley: I submit that there is no one method we can adopt for the operative treatment of these growths. I am rather tired of referring to the case which I have shown here on more than one occasion, in which, after removal of a very large growth from the postero-lateral portion of the nose, there were three separate recurrences. In that patient I split the soft palate and removed part of the hard palate, so that good access to the growth was obtained. But as it recurred, it was obvious I was not getting to the origin of the growth. Dr. Pegler was present at the final operation, when we opened the maxillary antrum, having removed the ascending process of the maxillary bone, and found the growth very firmly attached to the whole posterior wall of the antrum. It is obvious you cannot remove a growth from that position through the mouth: it must be approached through the face. Hence there are contingencies which necessitate operation through the nose or by a modified Rouge's operation. When the growth springs from the basi-sphenoid, as we used to be taught, one can operate through the mouth by Doyen's method. I do not think these growths spring from the basi-sphenoid as often as from the spheno-ethmoidal recess, so they are not, strictly speaking, naso-pharyngeal growths, but post-nasal, and should be classed with diseases of the nose rather than with those of the naso-pharynx.

Mr. Lambert Lack: There is no one method of dealing with all these cases; they vary so much that one must be prepared to deal with them in different ways. Some can be removed successfully with a thick wire snare, some require a far more severe operation. In one case, in which I used a snare, the patient remained free twelve years, but he has now a recurrence. In another case I performed the Watson-Williams operation, opening the nose from the front, because the growth spread up into the nose, and I think that was the best method of reaching it. At any rate, the operation was done six years ago and the patient remains well. In a number of cases the growths spring from the side of the naso-pharynx, where it is impossible to remove them surgically at all, and in such cases I think we should certainly try radium and X rays.

Mr. E. D. D. Davis: I have had four of these cases. In two of them Mr. Waggett and I split the palate, and in two the palate was retracted. The latter two went very much better than the others. In a young subject you get a very good view of the growth by pulling the palate well forward and pushing it up, almost against the roof of the mouth. There were prolongations into the nose. The cases did well, and the sections

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show that they were fibromata attached to the posterior wall of the naso-pharynx.

The CHAIRMAN (Dr. Donelan): I think Dr. Irwin Moore is to be congratulated on his demonstration and the discussion which has taken place. We gather from that discussion, as Mr. Tilley has so well pointed out, that each case requires its own special method of treatment.

Dr. IRWIN MOORE (in reply): In answer to Sir William Milligan, as to tying the external carotid, in looking up the literature in reference to these growths I find a case is reported by an American surgeon in which, though he tied the carotid, the hæmorrhage still continued. With regard to Dr. Guthrie's method, he uses a periosteal elevator through the nose. But I think this is beginning at the wrong end because, if, as in my case, there is a prolongation of the growth along the roof of the nose, this interferes with one getting above the base of the main growth in the post-nasal space. I did not know there was a prolongation into the nose in my case until I had got under the periosteum and stripped the growth off the roof of the post-nasal space, and had grasped the growth with forceps; then I found that it was attached to the spheno-ethmoidal recess, and I had to separate it by using a periosteal elevator, passed through the front of the nose. If such prolongations cannot be easily torn away along with the main growth after the latter has been detached, they may be loosened in the above manner. I agree with Mr. Tilley that there may be no one method of removal for advanced cases, but in most cases, and especially in the earlier stages, the procedure described above is certainly the best.

Instruments for Laryngo-fissure (Thyrotomy).—Irwin Moore.—Demonstration of some instruments specially designed and recommended by exhibitor for improving the technique of this operation: (1) Thyrotomy shears; (2) thyrotomy saw; (3) self-retaining laryngeal retractor; (4) intra-laryngeal scissors: (*a*) straight, (*b*) curved on the flat, (*c*) rectangular. The above-named instruments which I have devised for this operation have been for some years in use, though they have not yet been formally introduced to the profession, since it was my desire that they should first stand a fair trial. They are now used and recommended by many of my colleagues.

Thyrotomy Shears.—Designed for splitting the thyroid cartilage in the middle line so as to expose the inside of the larynx. They are very strongly made and are used in the same way as scissors. They will divide the cartilage with one clean cut without causing any crushing or damage, thus avoiding the risk of perichondritis and sepsis. The lower blade has a very fine saw edge, and is curved and pointed to facilitate its introduction through the crico-thyroid membrane under the lower edge of the larynx, and upwards between the vocal cords. The upper blade is provided with a sharp spike at the extremity of its cutting edge in order to transfix the larynx and keep it steady during the cutting. The position of the handles in relation to the blades is such that they are well away from the neck, so that the tracheotomy tube previously inserted in the trachea does not get in the way of the operator's hands.

Experience has proved the great advantage of these cutting shears over any other instrument used for this purpose. They may also be used in the treatment of stenosis of the larynx for the operation of laryngostomy—*i. e.*, laying open the larynx anteriorly and keeping it open for a long period of treatment. In such a case they will divide the cartilage and soft parts, including the skin, at one cut.

Thyrotomy Saw.—This is a small fine saw which is not so cumbersome

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as those formerly in use. It is intended for partially sawing the larynx before using the shears in those cases in which the upper and lower edges of the thyroid cartilage are ossified—so frequently met with in elderly people. The depth of the saw-blade is only 4 mm, so that it cannot do any damage to the intra-laryngeal soft parts. The shaft is bent in such a way that when the saw is used by the operator standing above the head of the patient, the patient's chin does not get in the way of the operator's hands. If it is used from below, the operator's hands are well away from the neck and do not come in contact with the tracheotomy tube.

Self-retaining Retractor for Larynx.—This instrument is made on the principle of a nasal retractor. It is useful for separating the lateral halves of the larynx after they have been split open by the shears, and retaining them in any position. With this retractor the larynx may be opened and closed, gradually or quickly, with the greatest facility without overstraining or damaging the cartilage, as may occur with ordinary hand retractors. The retracting hooks may be so adjusted on either side of the retractor that they do not interfere with the dissection of the growth from the inner wall of the larynx. It does away with the necessity of an extra assistant.

Intra-laryngeal Scissors.—(*a*) Straight. (*b*) Curved on the flat. (*c*) Curved at right angles. These have been made with small yet very strong blades and long shafts, which are strengthened to prevent any strain and consequent giving way in the cutting blades. After the perichondrium and soft parts have been raised from the inner wall of the larynx by the periosteal elevator, these scissors are of great service in cutting away the growth along with a portion of the surrounding normal tissue.

The straight scissors, or those curved on the flat are used in making the upper and lower incisions—*i. e.* above and below the growth, from before backwards.

The rectangular scissors are used to separate the mass posteriorly from the arytænoid cartilage.

Paralysis of Vocal Cord from a Bullet-wound.—F. A. Rose.—A soldier wounded at Armentières on October 20. The bullet apparently grazed the left thumb, left side of the chin, entered the neck 1 in. above left margin of sternum, and came to rest in the chest-wall in the neighbourhood of the right third rib, as shown by a skiagram. Surgical emphysema appeared in the right side of the neck and lasted one week; the patient also spat up small quantities of blood for several days. Since admission to St. Bartholomew's Hospital, under Captain Ball, there has been an attack of diaphragmatic pleurisy on the right side. The right vocal cord presents the appearance of abductor paralysis.

Dr. Dan McKenzie: Perhaps I may be allowed to mention the sequel of a case I showed at the last meeting, that of a bullet wound of the neck which I thought had gone through the vagus nerve. The patient has since been submitted to operation and the vagus exposed, and it was found that that nerve had not been cut, but it was tightly bound up by adhesions, from which it was released. I have not seen the patient since the operation. Our President expressed the opinion that the vagus had not been cut, his alternative suggestion being that it was bruised.

Dr. D. R. Paterson: I had under my care a soldier who was injured by the explosion of a shrapnel shell while he was lying in his dug-out. He was awakened by the explosion, and found that his voice had gone.

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A spicule of shrapnel had traversed his carotid sheath, the point of entry being almost opposite the thyroid cartilage; one could see the spicule in front of the vertebra. There was complete paralysis of the left recurrent nerve. In Mr. Rose's case there appears to be some slight movement. In our case we did not feel justified in cutting down upon it. The loss of voice followed immediately on the injury.

Sir WILLIAM MILLIGAN: At a previous meeting I showed a skiagram of a bullet embedded in the second cervical vertebra. The only lesion left was recurrent paralysis. The bullet remains in the vertebra to this day. The man is well, except for paralysis of his vocal cord. Something must have happened to the vagus in his case.

Dr. JOBSON HORNE: The man has a remarkably good voice at present. Not a few such cases have come under notice, and the lesson of experience is that so far as surgical exploration is concerned the less that is done the better.

Dr. DUNDAS GRANT: It would be interesting to note whether, and after what interval of time, the right vocal cord passes from the position of abductor paralysis into that of complete paralysis illustrating Semon's law: and whether at that time the voice will again become husky.

Mr. ROSE (in reply): I showed the case because, although we have seen a series in which the left cord has been paralysed by a bullet, this is the only one in which I have seen right-sided paralysis. The patient has several wounds on the left side of the body, he has none on the right side; therefore the bullet must have entered the left side of the body and travelled across the middle line. It is highly probable his trachea was bruised, if not perforated, because surgical emphysema appeared on the right side of the neck, and for several days he spat up blood. The bullet is clearly visible on the right side, in the chest wall, near the third rib.

Unilateral (Left) Paralysis of Soft Palate and Larynx.—Charles A. Parker.—J. D——, aged 27, telegraphist, eighteen months ago noticed his voice was gradually getting weak. Came to Golden Square Throat Hospital in October, 1914, when he was found to be suffering from left unilateral motor paralysis of the soft palate and complete paralysis of left vocal cord. There was no history of any preceding illness. There was some subjective improvement after a course of strychnine. Patient came to the hospital again a fortnight ago as his voice had become hoarse as well as weak. The conditions of left half of palate are just as they were a year ago, the left cord remaining completely paralysed. The hoarseness is accounted for by a tag-like thickening of posterior third of the right vocal cord. Suggestions as to the nature and position of the nerve lesion are invited.

Dr. JOBSON HORNE: I consider that the case calls for a good deal of clinical investigation before an opinion can be usefully expressed. The clinical condition of the soft palate and larnyx reminds me of a case of syringomyelia I brought before the Laryngological Society of London in 1897.

Dr. DUNDAS GRANT: There may be an isolated spot of sclerosis at the root of the vagus nerve.

Mr. HERBERT TILLEY: Those who are interested in this class of case will find in the Laryngological Society's *Proceedings* the reports of two similar cases shown by me many years ago. One was that of a man whom we thought had pachymeningitis at the base of skull. He had the left vocal cord, left side of palate, the upper part of the left trapezius and the

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left sternomastoid paralysed. It is a class of case of which examples were shown by Sir Morell Mackenzie and Sir George Johnson, and quoted by Sir Felix Semon in one of his monographs on the subject.

Dr. BANKS DAVIS: I showed a case very similar,[1] in which there was paralysis of the left side of the tongue and palate and of the left recurrent laryngeal, and it was regarded as a specific pachymeningitis. As he had difficulty in swallowing, we took him into the hospital. At the *post-mortem* examination we found he had a large cancer at the base of the tongue which he had not complained of during life.

Malignant Disease (?) of the Left Arytæno-epiglottidean Fold and Ventricular Region of the Larynx.—Irwin Moore.—Female, aged thirty-eight. Came to hospital on November 15, complaining of difficulty and pain in swallowing, together with hoarseness of the voice for two months, and feeling as if there were a lump in her throat. For six weeks there has been vomiting immediately after food, and patient has been losing weight. Palpation of larynx causes considerable pain on left side, suggesting perichondritis. No glands in the neck can be felt. No history of syphilis. There is marked œdematous infiltration of the left arytæno-epiglottic fold and ventricular band, together with paresis of the left vocal cord.

Mr. HERBERT TILLEY: I think that the condition is inflammatory, and not a new growth.

Dr. JOBSON HORNE: The clinical appearances do not suggest to me malignant disease of the larynx. Tuberculosis should be completely excluded from the diagnosis in the first place.

Halfpenny impacted for Five Days in the Œsophagus of a Child, aged four.—Irwin Moore.—This case occurred at a general hospital in the suburbs, and illustrates the great advantage of the more modern method of endoscopy over the old coin-catcher. Though the position of the coin was well shown by X rays at the level of the seventh cervical vertebra, all attempts to seize it with the coin-catcher failed, owing to the coin lying against the posterior wall of the œsophagus, and so the instrument missed it by passing up and down in front of it. Five days later the coin was removed without any difficulty through the œsophagoscope. Œsophageal wall undamaged. Patient left hospital next day.

Dr. PATERSON: I had a case in which a halfpenny had been in the œsophagus eighteen months, and it looked as if it had been dug out of some Roman ruin. As in Dr. Moore's case, the child had gone to a general hospital, where it had been submitted to a coin-catcher, and as it failed to bring anything away the child was sent home. After eighteen months there were some tracheal symptoms, and at hospital the coin was discovered. These cases are common now, and I think it is time the authorities at general hospitals recognised that the direct method is the proper one, and that such cases should not be submitted to a coin-catcher.

Sir WILLIAM MILLIGAN: I want simply to remark that I think it is on the posterior wall that these coins always lie. It is right to recognise this, because even with the œsophagus tube it is possible to pass over a halfpenny without knowing it. I associate myself with Dr. Paterson's remark; I think hospitals should give definite instructions to house-

[1] See JOURN. OF LARYNGOL., RHINOL., AND OTOL., vol. xxix, p. 32.

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surgeons not to use the coin-catcher. It is lamentable the state the œsophagus is brought into sometimes by the inexperienced trials at removal of foreign bodies. If these cases were at once sent to the right department, the right method would be used. I have several times seen fatal cases as the result of the wall of the œsophagus being torn by means of coin-catchers. I would suggest that this Section frame a resolution and forward it to the various teaching hospitals in the country.

Mr. HOWARTH: I should like to relate a case illustrating Sir William Milligan's remarks. At a hospital with which I am connected an attempt was made to extract a halfpenny from a child's œsophagus by means of a coin-catcher. The child bit the coin-catcher, broke off the end, and this was swallowed. It became impacted in the pylorus and had to be removed by laparotomy, and the coin, which remained impacted in the œsophagus, was removed by the direct method. Since this occurrence the coin-catcher has been banished from the casualty department at that hospital.

Dr. F. DE HAVILAND HALL: I certainly think some representation on this subject is desirable, but not to a lay committee. I think that if the Section were to draw up a communication and send it to the members of general hospital staffs it would be very desirable indeed. The time has come for pronouncing that the direct method should be employed in these cases, instead of using the coin-catcher.

Tin Disc, 1⅜ in. in Diameter, removed from the Gullet by the Direct Method.—D. R. Paterson.—A lance-corporal, serving in the trenches, found after swallowing a piece of bully beef that the disc usually placed inside the tin had been attached to it and got stuck in his throat. On being admitted to the Third Western General Hospital under exhibitor's care six days later, a skiagram showed the disc opposite the sternal notch. On examining through the œsophagoscope it was noted that the gullet, distended laterally, was sloughing where the edge of the disc impinged on it, and there was a fœtid odour. After making out its bearings, a large-sized tube (20 mm.) was passed, and the disc being well exposed was loosened by careful manipulation and drawn up along with the tube. The disc is rather larger than half-a-crown, with its edge turned up at three points.

Large Irregular Piece of Bone, impacted in the Œosphagus, removed by Direct Method; Death from Sepsis Six Days later. —D. R. Paterson.—The patient, a short, thick-necked man, aged thirty-five, swallowed a piece of bone in some soup, and was seen some hours later by a doctor, who tried without success to pass a bougie. When seen next day by the exhibitor, inability to swallow was absolute. Direct examination showed the mass opposite the level of the sternal notch with some œdema of the gullet mucosa above it. By passing a 20-mm. tube a good view was obtained of its upper aspect, from which a sharp process impinged into the left side of the gullet. The mass was firmly impacted, and owing to its size and shape ordinary forceps failed to grasp it properly or move it. On the following day, with Irwin Moore's forceps, a good hold and better control was obtained. Careful attention being paid to protecting the mucosa from the sharp projection on the left, steady traction with some lateral movement was made, and the mass was removed without much difficulty. Examination of the parts immediately after showed slight bleeding from the œdematous

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mucosa on the right, which had apparently been scored by a ragged edge of the bone. The patient did well until the fourth day, when the temperature went up; there were pain and tenderness on the right side of the neck, and he died two days later, apparently from septic absorption. No autopsy was obtained.

The foreign body—part of a vertebra—has one end smooth and conical, which facilitated entrance into the œsophagus; the other—the upper surface as it lay *in situ*—being oblique with a fractured surface, measures 1 in. (23 mm.) transversely, and ¾ in. (17 mm.) antero-posteriorly. The prominent sharp process on the left side was protected during extraction, and it was evidently the sharp right edge, which lay deeper and could not be so well examined, that caused the lesion. Before extraction, the question of œsophagotomy was considered, and it was thought the site of impaction and the short thick neck of the patient precluded it.

Sir StClair Thomson: I would like to draw attention to the great danger connected with such septic bodies as pieces of bone in the œsophagus; they are much more dangerous than such articles as tin discs or halfpennies. I have removed from a gullet a denture which had been there two and a half years, and had not led to any septic trouble, and not long ago I removed a piece of hare-bone (from hare soup, a highly septic concoction) which had been in a man's bronchus six to eight months. But when septic bodies are in the œsophagus, and even when removed with all the art of which we know Dr. Paterson is capable, still extraction is a very dangerous proceeding, and we should be careful about our prognosis.

Dr. Dan McKenzie: I think that the matter of sepsis in Dr. Paterson's case raises a very important question indeed, and that is whether it is possible to know when it is better to perform an external operation on those cases rather than attempt removal by internal manipulations, even through the endoscope; because in a case of this description only external operation would give the patient a chance. Having seen the foreign body, I consider it is remarkable that Dr. Paterson should have succeeded it getting it out at all. It is wedge-shaped, angular, and the œdematous mucous membrane had lapped over the sharp edges of the base of the wedge as it lay point downwards in the œsophagus. Here an external operation might have given the man more chance. Of course, it would often be impossible to determine when external operation should be preferred.

Dr. Hill: It may perhaps be suspected that the employment of an endoscope of so large a diameter as 20 mm. has something to do with the fatal result in one of Dr. Paterson's cases. I do not think that is so, however, as I have for many years consistently employed œsophagoscopes of 18 mm. and 20 mm. diameter without any evidence of harm resulting. I was led to adopt tubes of large calibre after Dr. Paterson had reported a case of a large bone in the gullet, which he only succeeded in removing after improvising an endoscope out of a bicycle frame tube 20 mm. in diameter. Chevalier Jackson's largest œsophagoscopic tube is 10 mm., and Killian's tubes and also v. Brüning's outside tubes do not exceed 13 mm. in diameter. In my experience, however, the use of the large-calibre tubes introduced by Dr. Paterson greatly facilitates endoscopic procedures for diagnosis—and, of course, more especially in treatment—and mark a great advance in technique.

Major Kent Hughes: I had a case in which a halfpenny was swallowed by a child five months before, and the patient was brought to a children's

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hospital on account of bronncho-pneumonia. There was a history that something had been swallowed, and the X rays showed a halfpenny in the posterior mediastinum, and it had ulcerated through the right posterior wall of the œsophagus. We managed to remove it by cutting away a part of the clavicle and two ribs. The child died of broncho-pneumonia. With regard to external operation for removal of a foreign body in the œsophagus, I have done œsophagotomy for such a case once, and I do not want to do it again. It was the case of a man who swallowed an upper metallic denture. It lodged 2 in. below the sternal notch, and nothing I did made any impression up or down. I did not like to do much to it, as it was so tightly impacted. I did a low œsophagotomy and with great difficulty removed the denture with a strong pair of Spencer-Wells forceps. If anyone does this operation, I advise him at the same time to remove the jugular vein. This man went on well for two days, and then ate quickly an unripe pear which the occupant of another bed had given him while the nurse's back was turned. His œsophageal wound was split, and I had to cut through the lower end of the sternomastoid muscle so as to get better drainage. The jugular vein ulcerated, and whilst the house-surgeon was dressing him there was violent hæmorrhage, which was controlled by a double ligature round both vessels. In view of the fact that one so often gets sepsis following œsophagotomy, I should now remove the internal jugular vein at the outset.

Mr. Lambert Lack: I do not know whether members will approve of a procedure I once adopted. To avoid œsophagotomy, I pushed the foreign body—a large tooth-plate—into the stomach, and left the surgeon to deal with it by that route, a much simpler and safer procedure than œsophagotomy. Some foreign bodies which will not come up can be pushed down easily.

Dr. Irwin Moore: I should like to congratulate Dr. Paterson on so successfully removing the tin disc by means of an œsophagoscopic tube. At our meeting on February 5, 1915, Mr. Whale reported a similar case —a piece of tin with the same measurements, *i. e.* $1\frac{3}{8}$ in. diameter—which he was obliged to remove by œsophagotomy. I think the question of using bigger tubes is a very important one, for it would appear that the lumen of the œsophagus is much larger and more distensible than we are accustomed to think it is, and it is evident that we can safely use much larger tubes for the removal of foreign bodies.

Mr. E. D. D. Davis: I had, last week, a case in which a hare-bone was impacted. When I removed it by the œsophagoscope it was surrounded by an abscess. The patient, a lady, aged forty-eight, died suddenly forty-eight hours later of mediastinitis and a double pleural effusion; the pus had tracked downwards between the anterior wall of the œsophagus and the trachea, and led to the fatal result.

Dr. Paterson (in reply): I brought this case forward to call attention to the great advantage of these very large tubes. As Dr. Hill has said, I have used them for many years, and I have not noticed any difficulty or after-trouble. I do not think the large tube was responsible for the fatal result. I think it was due to some tearing of the œsophagus during the extraction of the bone. Those who have seen the foreign body will realize the difficulties which were met with. The question of an external operation is very important, and was carefully considered at the time. The man had a very short, thick neck, and the foreign body being down at the sternal notch, it meant our going into the mediastinum, and the chance of successful œsophagotomy was very small. The direct

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method was preferred. The difficulty of extraction was not very great, and such a result was very disappointing, because he went on very comfortably for four days, and then suddenly the septic condition occurred. If there had been any warning of this onset naturally one would have opened the part. I particularly recommend the large tube.

Laryngeal Case for Diagnosis.—Irwin Moore.—Male, aged fifty-three, complaining of hoarseness for one month, gradually getting worse. History of syphilis twenty-seven years ago. The right vocal cord is thickened, œdematous, and restricted in its movements. There is also some infiltration on the inner surface of the right arytænoid.

Dr. JOBSON HORNE: I assume that the all-important point to be eliminated in this case is the presence of malignant disease of the larynx. Personally I can see no evidence of malignant disease.

Case for Diagnosis. ? Chancre of Lip.—Irwin Moore.—Male, aged twenty-seven, complains that he has suffered from swollen glands, both sides of neck, for one month. He has been unable to swallow solid food for three days, and can only take liquid food with considerable pain.

Major KENT HUGHES: I think that the lesion on the inside of the lower lip is undoubtedly a primary chancre. There is, in addition, a faint rash on the skin, and the very large glands are almost diagnostic of of a primary syphilitic infection in the neighbourhood.

Dr. JOBSON HORNE: I agree with the diagnosis; so far as one can judge in the artificial light, there appears to be a secondary eruption on the face. On palpation neither the sore on the lip nor the corresponding gland at the angle of the jaw yields the same induration as in similar cases I have examined. The glandular condition is dominated in this case by the extensive tonsillar involvement.

Dr. BANKS DAVIS: I have seen a good number of cases of the kind, and I think that if the chancre is at the junction of mucous membrane and external skin of the lip there will be an enormous collar of glands, so that the case may be mistaken for mumps. If it is on the inner side —*i.e.*, mucous membrane—there will not be the same glandular involvement, and the glands will be soft.

Chronic Dacryocystitis cured by West's Intra-nasal Operation after Failure by External Operation.—Herbert Tilley.—Mrs. E—— was operated on by the external method by an ophthalmic surgeon three and a half years ago for chronic suppuration in the right lacrymal sac. A suppurating external fistula remained. On July 27, 1915, I performed West's operation, and last week received a letter from the patient saying "I am better than I have been for six years."

(By West's operation is understood the exposure of the lacrymal sac in the nose, and the removal of the greater portion of its inner wall; in the large majority of cases the stricture is at the junction of the sac with the lacrymal canal, and hence the operation provides permanent drainage into the nasal cavity above the stricture.)

Dr. DUNDAS GRANT: It is an admirable result, and I should like to ask whether Mr. Tilley has any information as to what the external operation was, whether it was complete excision of the sac or possibly an imperfect one.

Mr. HOWARTH: I have operated upon about a dozen such cases, and the result is extremely satisfactory. Ophthalmic surgeons say that some-

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times after these operations you still get a mucocele and some discharge through the canaliculus, owing to the lower part of the sac being left and bulging down. This can be overcome by taking away the upper part of the duct as well as the sac, and I do that in my cases now. I have had no untoward results, and certainly the cases have done well.

Dr. PATERSON: In two cases I have had there has been some closure of the opening after the operation. Both of them were cases of syphilis, and I think it well definitely to ascertain whether syphilis is present in such cases, and, if so, to make a large opening. In both my syphilitic cases, which closed afterwards, I made a much larger opening. I used the small punch-forceps which Dr. Watson-Williams employs for enlarging the entrance to the fronto-nasal duct. Another difficulty I have met with occurred also in a syphilitic case, in which considerable retraction and bony change had taken place. The position of the sac is sometimes determined, and one can combine it with Toti's operation; I have done it in two cases, with very satisfactory results. Another instance where I had the same difficulty occurred in a man who had a very severe injury, his face being driven in, and so the position of the sac was very difficult to determine. We started inside, and found the bone was so thick, and it was so indefinite, that we did an external operation at the same time, and by combining them we secured a very good result.

Dr. JOBSON HORNE: It is interesting to note how long it takes for a scientific suggestion to become generally known and adopted. Speaking from memory, I think I am right in stating that as far back as the eighteenth century an English surgeon pointed out that dacryocystitis could be successfully treated by an operation performed through the nose.

Major KENT HUGHES: In former years I did a good deal of eye work, because in Melbourne specialities are not so sharply divided as here. Some of the failures of West's operation may be due to the fact that ophthalmic surgeons make false passages in these cases more often than they know. I say this advisedly, because for several years I have tried to cure this condition by making a new mucus-lined tube for the lacrymal duct, dissecting the whole sac and duct out. I placed a hollow tube surrounded with mucous membrane in the lacrymal groove. It answers very well at the time, but it is difficult to get enough tissue there to prevent subsequent contraction. I suggest that when the rhinologist fails in curing the lacrymation it may be due to the fact that there are two or three false passages in the upper part of the tract.

Mr. TILLEY (in reply): I was asked, in the other room, "How do you know exactly where the sac is when you look up the nose?" There is an easy way of finding it, namely, to take a pair of forceps with biting edges, such as we use in detaching the tissues covering the capsule of the tonsil. Pass one arm of the forceps outside the nose till the end rests on the lacrymal sac; the other arm is passed up within the nose and, by pressing it towards the outer arm, a small blood spot can be made which will reveal the situation of the sac inside the nasal cavity.

Microscopic Specimen of Recurrent Epithelioma removed from the remains of the Right Ventricular Band of a Patient who had been Operated upon for Epithelioma of the Right Vocal Cord Nine Years ago.—Herbert Tilley.—A male, aged seventy-one, underwent thyro-chondrotomy in May, 1906, and until the last four months he had no laryngeal symptoms. He then noticed an alteration in his voice, it became more gruff and his throat ached after much talking. Having

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seen him every six months since the operation, I was surprised in October to notice a localised swelling in the anterior half of the laryngeal mucous membrane corresponding to the situation of the right ventricular band (removed at original operation). This increased in the course of three weeks, and when examined on November 7 the appearance was that of a greyish-pink, localised, slightly nodulated swelling about the size of a pea. I opened the larynx again on November 18, and found the nodule suspicious in its appearance, but soft to the feel. Fearing it was a recurrence of the old trouble, I removed all the soft tissues which covered the internal aspect of the right thyroid cartilage. The patient made a rapid recovery, his temperature not having risen above normal when he left the home ten days after operation.

The case is recorded because of the anxiety caused to both the patient and myself by the rapid development of symptoms and pathological appearances in the situation of a former operation for squamous epithelioma.

Dr. Teale cut sections of the nodule and reported that it was definitely epithelioma. So it is a recurrence nine years after the primary operation. It is somewhat remarkable that amongst my operations for malignant disease of the vocal cord by thyro-fissure, I am able to record recurrences five, six, seven, nine, thirteen, and fifteen years after the primary operation.

Carcinoma of the Superior Maxilla with Secondary Glands in the Neck; Operation; no Recurrence after Two Years.—W. M. Mollison.—Female, aged forty-five, was shown at a meeting of the Section in May, 1914, after operation for carcinoma of the left maxillary antrum and removal of malignant glands in the neck in January, 1914. Now, nearly two years after operation, she remains free from recurrence.

Sarcoma of the Ethmoid; Operation.—W. M. Mollison.—N. R——, female, aged twenty, was seen at Guy's Hospital in February, 1915, on account of pain about the right eye and swelling in the region of the nasal process of the right maxilla. She had some right-sided nasal obstruction. Examination of a piece of tissue from the ethmoidal region showed the case to be one of sarcoma. Operation was performed through Moure's incision, and the nasal process of the maxilla removed and the ethmoidal cells opened; these were found to be filled with soft growth, and finger-like processes projected downwards and hung into the antrum; the origin of the growth appeared to be from the lining of ethmoidal cells. The whole growth came away easily and seemed almost to be encapsulated. There is as yet no sign of recurrence, and the patient feels perfectly well.

Mr. Howarth: Sarcomata of the ethmoid are often very amenable to surgical treatment, as they appear to be of only a low degree of malignancy, and that delays any recurrence. Moure's operation is in most cases an excellent procedure; it gives admirable access to these tumours of the ethmoid, and one can often remove the whole growth and much of the surrounding tissue in a case that does not look by any means hopeful.

Dr. Dan McKenzie: If these cases are watched afterwards, sometimes one can see the first sign of recurrence, and if the cautery is then applied it will stop the progress of the disease.

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Sarcoma of the Tonsil (?); Mass of Glands in Neck; Removal of Tonsil.—W. M. Mollison.—Male, aged thirty-seven, complained of enlargement of the glands in the right side of the neck, extending as high as the parotid region, also an enlarged tonsil. On examination, the right tonsil was seen to be much enlarged, but normal in shape and consistency. The glands in the neck appeared to be discrete and fairly soft; glands were also felt in both epitrochlear regions, in the axillæ, and in the inguinal regions. A blood-count kindly carried out by Dr. P. P. Laidlaw showed the following: Red cells, 5,700,000 per cubic millimetre; hæmoglobin, 100 per cent.; white cells, 8400 per cubic millimetre; polymorphonuclears, 63·6 per cent.; eosinophiles, 7·3 per cent.; lymphocytes, 19 per cent.; large hyaline, 10 per cent. No abnormalities among the red cells. This result did not suggest a general blood disease. The right tonsil was therefore enucleated, under intratracheal insufflation of ether, and an epitrochlear gland removal.

The tonsil is shown, also microscopical sections of the tonsil and of the gland, and these show chronic inflammatory changes only.

Mr. Mollison (in reply to a remark by a Member): I would like to mention the enormous help one gets in these cases from intratracheal insufflation of ether. There is no comparison between that and the ordinary chloroform inhalation method. Microscopical section of the trochlear gland and tonsil shows neither sarcoma nor Hodgkin's disease, as suggested, but an inflammatory condition. The question came up in this case whether his occupation as a munition worker was in any way the cause of his condition. I do not think so.

Exostosis from the Frontal Sinuses and Ethmoidal Cells.—H. Lambert Lack.—(i) This large exostosis occupied the whole of the inner end of the left frontal sinus and extended backwards almost horizontally through the ethmoidal region towards the sphenoidal sinus. It was discovered on operation. The patient had a small sinus over the centre of the upper eyelid which led directly to bare bone. I regarded this as a suppurating frontal sinus which had opened itself, although the nose appeared normal and there was no history of nasal trouble. The frontal sinus was exposed through the usual incision and an attempt made to open it over its inner end. In this region nothing but dense bone was encountered, and it looked as though no frontal sinus was present. By chiselling over the outer half of the orbit, however, a fair-sized cavity was opened, which seemed to be a displaced frontal sinus. It contained pus and the mucous membrane was thickened. The walls of the cavity were entirely removed, and the operation completed by removing the whole of the lining membrane and enlarging the infundibulum. The bony mass of the inner half of the sinus was now examined thoroughly, and seemed to be growing from the posterior wall of the sinus. It filled the sinus so tightly that not even the finest probe could anywhere be inserted between the growth and the anterior or posterior walls of the sinus. The nasal bones were cut away until the growth was exposed, and it was then found to be loose and easily extracted, leaving a huge cavity. When this had been done and the cavity freely opened into the nose it was found that the sinus septum was perforated and the opposite frontal sinus was full of pus. This sinus was also dealt with by obliteration in the usual way. The patient made an uninterrupted recovery.

(ii) This exostosis was removed some years ago. Half the growth projected into the orbit and two or three attempts had been made to

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remove it. On exposing the growth thoroughly by a curved incision round the inner angle of the orbit the growth was seen to pass through the inner wall of the orbit into the ethmoidal region. The inner wall of the orbit was accordingly chiselled away until the growth became loose, when it was easily extracted, leaving a large perforation into the nose. This patient also made a rapid recovery.

Tracheitis Sicca in a Boy.—H. Lambert Lack.—This patient, a Hebrew boy, aged seven, was sent to me two months ago with marked stridor and considerable dyspnœa of five weeks' duration, for which no cause could be found. On examination I found the trachea obstructed by a mass of large black crusts which seemed almost to fill the lumen. The boy was treated with steam inhalations and a "bronchitis kettle" with no effect. Many days he was kept in bed, and some days he had marked dyspnœa and, according to the parents' account, became cyanosed. I then put him in a nursing home, had his nose syringed twice daily, the throat sprayed three times a day with a Seigle's steam spray, and gave him small doses of potassium iodide. Under this treatment he has greatly improved. There is no stridor nor dyspnœa, but there are still crusts to be seen in the trachea. At no time has the larynx been affected, the voice has always been good, there are no crusts in the pharynx. The nose is rather wide, with a tendency to dryness.

Dr. F. de Havilland Hall: I would point out the difficulty which sometimes arises in the diagnosis of these cases. Some years ago I was called in to see a patient in consultation, a man, aged about thirty-five, who was suffering from urgent dyspnœa and was very restless. There was very little air entry, and he had marked tracheal stridor. On examining his larynx as well as his restlessness would allow, I found the vocal cords were much congested, but moving freely. I could not get a view of the interior of the trachea. The voice was fairly clear. The urgent symptoms were dyspnœa and some cyanosis. I am bound to say that for some minutes I was staggered for a diagnosis; he had been like that for three days, and I could not find a cause of direct pressure on the trachea. It was only afterwards I thought he had some rhinitis sicca, which led me to expect the possibility of extension to the trachea. He was taken into hospital, and there under warm alkaline sprays and iodide of potassium and chloride of ammonium internally, he brought up in two or three days an enormous mass of thick inspissated secretion from the trachea. When I saw him he seemed to be in imminent peril of death. Cases of this kind should be reported, because there is sometimes so little to be seen.

Dr. H. J. Banks Davis: I suggest the application of paroleine and menthol with a laryngeal syringe.

Mr. Lambert Lack (in reply): I brought the case forward to ask about treatment. The treatment which Dr. Hall has mentioned has been carried out with the exception of giving ammonium chloride, but it has not cured him; he still has crusts, but has lost his dyspnœa. I have had one case which died in almost exactly the same circumstances as Dr. Hall has described. I have seen others, but not another fatal case. The cause of this affection is doubtful; in most cases there has been very little wrong with the nose. In some cases alcoholism seemed probable.

Papilloma of Larynx in a Child treated under Suspension Laryngoscopy.—Dan McKenzie.—The patient, a boy, aged seven, had

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papillomata removed on several occasions in the usual manner, but always with recurrence, so Albrecht's plan[1] of suspension and curetting was tried. The individual papillomata having been removed, their bases were curetted. The operation took place a year ago, and there had been no further recurrence so far.

Mr. E. D. D. Davis: I have done four of these cases recently, and I used a very fine cautery after removing the papillomata with Paterson's forceps, with good results in children. This has been done two or three times, and I have had neither trouble nor recurrence. It has been carefully done under direct vision, and there has been no scarring.

Dr. Dan McKenzie: I should be extremely cautious in applying the cautery to the larynx of a child; first, because of the reaction, and secondly, because of the risk of adhesions and contraction. If a simpler method, such as curretting, is used, the result is as good and it is freer from risk; this method has been carried out in many cases with success.

Dr. Jobson Horne: I have used the galvano-cautery in the treatment of papillomata of the larynx in a child, aged twelve months, and with satisfactory results.

Long-continued Spasm of the Œsophagus.—Dan McKenzie.—The patient, a man, aged twenty-seven, came to hospital about a year ago complaining of obstruction in the gullet of fifteen years' duration. According to the patient's story the swallowing both of liquids and of solids (or semi-solids) had long been a matter of great difficulty with him. Whatever he took seemed to lodge in his chest, and on most occasions was regurgitated into the mouth and swallowed again. The manœuvres necessary to circumvent the obstacle occupied so much time that it was by no means unusual for him to give up a meal in despair. Indeed, when he was first brought to us by Dr. T. B. Jobson, one of our registrars, he was living entirely upon liquids.

The X-ray picture shows general dilatation of the œsophagus above the cardia, but the screen showed two points at which the bismuth meal was arrested.

By endoscopic examination, the only obstruction found was at, or about, the cardia, where the lumen of the gullet seemed to be sharply crescentic, with the convexity forward. A solid bougie was easily passed under inspection; and, beginning with a medium size, we have gradually worked up to the full size, which, once inserted, is allowed to remain *in situ* for periods of an hour at a time.

The result of the treatment has been encouraging. The patient is able to eat, if not a quick lunch, at all events with some hope of filling his stomach, and his weight has increased by 1 st. in the last two or three months. He is not quite well yet, but we are hoping eventually to obtain a permanent success.

I could see no sign of any ulceration or other disease of the mucous lining, consequently it may be tentatively regarded as a case of spasmodic stricture—what Dr. Hertz has called "achalasia of the cardia." One can now insert the œsophagoscope through the cardiac orifice into the stomach.

Dr. F. de Havilland Hall: I have had two cases of long-continued spasm of the œsophagus, both of them in medical men, aged forty-three and thirty-five respectively, and both addicted to morphia. In one, the

[1] See Journ. of Laryngol., Rhinol., and Otol., vol. xxix, p. 71.

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spasm lasted eighteen months; it came on soon after he discontinued the morphia; but, persevering, he recovered fair swallowing power. He again took to morphia, and on discontinuing it he had a recurrence of the spasm. When I saw him he was very much emaciated, and could swallow nothing but milk, and had some difficulty in taking even that. Yet a large-sized bougie passed easily into his stomach. By persevering and keeping him off morphia, he made a good recovery. That was twenty years ago, and when I saw him two or three years ago he was in very fair condition. The other patient, aged thirty-five, also easily allowed the passage of a bougie, yet next day the difficulty in swallowing was as pronounced as ever. This lasted two or three years to my knowledge, and then I lost sight of him. I have wondered whether there are other similar instances on record. The morphia was not taken for the spasm. One of the patients had been my clinical clerk at a hospital, and when I called in to see him he was suffering from acute tonsillitis, and was in great agony. I injected morphia, and he attributed his habit to the delightful sensation so caused.

Mr. Mollison: I have recently seen a curious case somewhat similar to this, in a man aged about thirty-eight. He was admitted to hospital because of his total inability to swallow. We examined him by the direct method, but found no ulceration or obstruction. Next day he swallowed well, and could swallow full diet. But he came up again in five weeks' time, the doctor saying he was excessively ill; he had become thin and wasted, so that he could scarcely walk into the ward. Again we passed a tube, but found nothing wrong, and this time I left a gastric tube in place for forty-eight hours, and he was fed through it. At the end of that time he swallowed a full meal again, and went out well. Thinking he might be a case of achalasia, I tried passing a mercury-filled rubber tube, but it would not go through the cardia. He may yet develop signs of malignant growth.

Mr. E. D. D. Davis: I have seen a *post-mortem* of an apparently similar case, in which gastro-enterostomy had been done for persistent vomiting. A dilated œsophagus was found and one could get the thumb through the cardiac end. There was no stricture, no mediastinitis, and no œsophageal obstruction.

Major Kent Hughes: A near relative of mine suffered from this condition for many years, but is practically well now. Still, whenever she does too much, or is very tired, the condition recurs. Probably it has to do with exhaustion of the longitudinal fibres, as Dr. Hertz has pointed out. Was there, in this case, a difference between the ability to swallow hot liquids and cold liquids? In the case I speak of, the patient could take warm liquids, but not cold ones.

Dr. Dan McKenzie (in reply): The points about morphia and tiredness are exceedingly interesting from a physiological point of view. When the vagi are simulated the œsophagus contracts and the cardia opens; and when the vagi are paralysed the œsophagus dilates and the cardia closes. That would explain cases which were worse during tiredness, and might explain the cases in which morphia-taking seemed to be the cause. My patient has had obstruction since the age of twelve. Several months ago Mr. Hope showed a case in which a similar spasmodic contraction of the œsophagus was found in a child, and it was cured by the passage of bougies.

Child with Enlargement of External Nose.—William Hill.—Girl aged eight, whose nose has been getting very large for nine months,

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with rapid increase during the last three months. The bones, as well as the soft parts, are involved in the uniform enlargement, which now amounts to a deformity. No suggestion of an angeiomatous, lipomatous, or other obvious lesion. History of maggots in nose one year ago.

Mr. WHALE: I saw the case a year or more ago, when the mother said maggots were coming out of the nose. I gave an anæsthetic, expecting to find a bead or insect there, but found nothing amiss. I am sure that at that time there was no enlargement of the nose; this must have occurred since.

Pharyngo-laryngeal Carcinoma.—William Hill.—Male, aged forty-nine, with epithelioma of the pharyngo-laryngeal party wall, fullness of the right pyrifossa, and a secondary mass in the right side of the neck. Shown to elicit opinions as to whether the condition is within the limits of radical operative removal.

[Members were agreed that the disease was too advanced for any but palliative measures—*e. g.*, radium or diathermy.]

Epithelioma of Epiglottis.—William Hill.—This man was exhibited at the Section in March, 1914. The epiglottis was subsequently removed through a large endoscope as thoroughly as possible. The case is now shown to demonstrate the excellent palliative result obtained, although there are now signs of recrudescence of the growth, which had been microscopically proved to be an epithelioma.

Ulceration of Pharynx.—George W. Badgerow.—Mrs. O——, sent to me at the Throat Hospital, Golden Square, in June, 1915. She complained of pain on swallowing. On examination, a white membrane was noticed on the pharyngeal wall and epiglottis; on removal of the membrane the surface was very red and bleeding. On the epiglottis ulceration was noticed in places. The condition remains the same; it does not seem to get worse or better.

Mr. TILLEY: I should not be surprised if the appearances were found to be of factitious origin.

Dr. JOBSON HORNE: If the condition in the pharynx and right ary-epiglottic fold be due to disease, then, in my opinion, the disease is tuberculosis. I have not, however, met with a case of tuberculous ulceration of the pharynx in which tuberculosis of the lungs has not been definitely established.

Dr. H. J. BANKS DAVIS: It looks as if the patient had drunk corrosive fluid or boiling water. I remember a nurse in a hospital who was supposed to have periodical attacks of diphtheria; and whenever she wanted to get away she touched her tonsils with caustic, which produced a diphtheritic appearance.

Abstracts.

PHARYNX.

Schoolman, N.—The Bipolar Origin of the Faucial Tonsil. "The Laryngoscope," 1915, p. 338.

Male, thirty-six years, had diphtheria and scarlatina in childhood On the right side the tonsil fossa is occupied by two tonsillar masses which are completely separated by a deep, transverse recess. A large

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