

Abstracts.

PHARYNX.

The Plica Triangularis—a Causative Factor in the Production of Infective Foci.—F. G. Murphy. "Laryngoscope," May, 1917, p. 409.

Embryologically and pathologically the plica triangularis has its analogy in the prepuce. Both develop about the beginning of the third month of foetal life, and at birth they should have sufficiently receded to cause no interference with the function of adjoining organs.

The plica triangularis is attached to the superior border of the posterior pillar, and to the posterior edge of the anterior pillar, and is inserted into the lateral aspect of the tongue. With the forward growth of the tongue, before and after birth, the plica may be reduced so that it apparently disappears. The plica varies in size from an inconspicuous border along the anterior pillar to a fold covering the greater part of the tonsillar fossa, as in early foetal life. Normally, the tonsillar fossa is not entirely filled by the tonsil, and the drainage is perfect as the plica has sufficiently receded so that it covers no part of the tonsil. The crypts in the tonsil are drained at frequent intervals because of the contraction of the superior constrictor and palatal muscles during swallowing. The normal tonsil is rarely inflamed except in cases of general pharyngitis. Quinsy probably never occurs in this kind of tonsil, for it is almost certain that peritonsillitis, with infection of the lymph- and blood-streams, is due to infection through and of the mucous glands and the pericapsular tissues whose ducts do not open into the tonsil.

In cases in which the plica does not normally recede, when the tongue moves backward in deglutition, the plica is carried with it and the anterior pillar is pulled to the inner side of the tonsil instead of passing to the outer side as it should do. This prevents the normal draining of the crypts and favours the formation of retention cysts. There is apparently no relation between the growth of the tonsil and the size of the plica. A large tonsil may have a large plica or one that is scarcely visible. A small tonsil may be almost entirely covered by a large plica.

The removal of foci of infection by taking away the essential part of the plica is safe, theoretically correct, and clinically efficient when properly performed. Further, it promises relief from the criticism that we are removing an organ (the tonsil) whose function is unknown. After the plica has been severed, patients often maintain that they can swallow more easily than before.

J. S. Fraser.

Hemiplegia following Tonsillectomy.—Gracey. "The Laryngoscope," January 1917, p. 40.

Gracey records the case of a male, aged nineteen, who suffered from attacks of sore throat and hoarseness. Examination showed chronic follicular tonsillitis and subacute laryngitis. The tonsils were removed under gas ether anaesthesia, the dissection method being employed. The tonsils were adherent in places. At one time the patient came out of the anaesthetic and coughed considerably. There was more hæmorrhage than usual at the time, and half an hour later there was considerable venous bleeding from the right tonsillar fossa, but this was easily

controlled. Two days later the patient complained of headache, and on the following day he went out in a cold wind. In the evening he had a chill and pain over the right frontal sinus (temperature 105° F.). Next day he had two rigors, each lasting ten minutes and the temperature reached 106.2° F. On the following day it was noted that there was weakness of the left side—especially of the arm and leg—and later there was a complete left-sided paralysis. Convulsions set in and the fever continued. Respiration developed the Cheyne-Stokes type, and death occurred ten days after operation. Unfortunately a *post-mortem* was not obtained, but Gracey notes that lumbar puncture was always negative. He suggests that the hemiplegia was due to embolism in the motor area, probably of septic origin.

J. S. Fraser.

NOSE.

Frontal Sinus Suppuration.—Howard A. Lothrop. "The Laryngoscope," January, 1817, p 1.

Lothrop holds that the chief factor in the prolongation of sinus suppuration is inadequate drainage. It is difficult to provide this by intranasal methods. A radical external operation on the other hand is apt to be followed by deformity. The ideal method should combine efficiency, safety, absence of deformity, and preservation of the sinus. Lothrop considers irrigation of the sinus of little practical value, and considers further that there are serious objections to radical intranasal methods, as one can never be sure just where the end of the instrument is cutting. Lothrop condemns the Ogston Luc, the Jansen, the Kunt, and the Riedel methods of operating, and holds that the Killian technique leaves much to be desired. For the last four years Lothrop has performed an operation on chronic cases which aims at being both conservative and radical. He does not give details regarding his results, but states that most of his cases have been discharged as cured in a few weeks. The relief from pain is immediate, and post-operative supraorbital anæsthesia is avoided. In all cases both sinuses were utilised in order to obtain all the floor-space the anatomy would allow regardless of whether the sinusitis was single or double. Only one-third of the cases had trouble on both sides. *Technique*: The anterior end of the middle turbinate and the adjacent ethmoidal cells are removed at a previous operation. Cocaine (4 per cent.) in adrenalin (1 to 6000) is applied on cotton to the upper anterior portion of the nasal cavity just before the general anæsthetic is begun. The patient is in the semi-upright position, eyebrow not shaven. Posterior nares plugged from pharynx. An incision is made in the eyebrow down to the bone starting just internal to the supraorbital foramen, and running median in the brow for about 1 in. The supra-orbital nerve should not be divided. Elevate periosteum and remove an oval piece of bone with small chisels. Enlarge the opening with bone forceps till it is $\frac{3}{4}$ in. horizontally. The orbital soft parts are not to be disturbed. The sinus is then cleared of pus, granulations, or polypus. Pass a probe through the ostium frontale into the nose, and leave it in position until the cell structure around it has been broken down with small curettes. A small curved rasp is now passed into the nose through the anterior nares, and the tip made to appear in

the sinus. With this the opening is enlarged laterally and in front. Larger rasps and burrs are now introduced from below, but the work is always carried out under the guidance of vision as the instrument is seen through the external opening. The opposite sinus is opened by carefully pushing a pointed instrument through the interfrontal septum or by burring away the lower front corner of this septum. A considerable part of the ethmoid plate situated just below the sinus is removed, but the opening does not extend quite to the upper border of the septal cartilage. All the interfrontal septum and any septa that partially subdivide the sinuses are taken away. After the median partition has been burred through, it is of advantage to work through both nostrils. Finally, as much of the ethmoid mass is removed as is deemed necessary, using burrs and curettes (Tilley's and Ballenger's). The external wound is closed at once, and no drain left in the nose. Irrigation of the sinus is not begun until several days after the operation. The scar of incision should be scarcely perceptible. The bony opening is too narrow to allow depression.

J. S. Fraser.

Epithelioma of the Frontal Sinus.—Dougherty. "The Laryngoscope," January, 1917, p. 37.

Dougherty records a case of a male, aged forty-eight, who had had severe frontal headaches for one year with pain in the right eye and photophobia. Two weeks before admission he had been operated upon by a general surgeon, but had obtained no relief. Occasional attacks of dizziness were present. The operative wound in the forehead had never entirely healed. Inspection showed some bulging of the right eye and a suppurating fistulous opening over the eyebrow. The discharge was thin and ichorous. A probe introduced through the external opening met some soft resisting body. At operation the cavity of the sinus was found to be filled with a dark granular mass, which on microscopic examination turned out to be epithelioma. The inferior and posterior walls of the sinus were necrotic, and there was considerable exposure of the dura. The cavity was curetted, packed with iodoform gauze, and left open. The headache and giddiness disappeared, and the patient was able to get up for several weeks. Without any preliminary symptoms he suddenly became unconscious, and died in twenty-four hours. The *post-mortem* showed purulent meningitis.

CASE 2.—Male, aged fifty, complained of headache and vertigo for several months, and had also been previously operated on. Since operation the headache and giddiness had continued, and there was a purulent discharge from the wound. Inspection showed a partially healed Killian incision with fistulous openings, discharging a thick foul-smelling pus which had excoriated the skin. An ulcer on the upper eyelid was excised, and proved to be epitheliomatous. At the second operation the frontal sinus was found to be filled with a partly disintegrated mass which extended into the right frontal lobe. The wound was left open. Dougherty notes that there was no impairment of the patient's intellect. Fourteen days after operation there was some difficulty in walking and in the finer movements of the hands. This was followed by convulsions of the left side, and later by total paralysis and coma. Autopsy showed epithelioma of the frontal lobe with extensive infiltration.

J. S. Fraser.

E.A.R.**Acute Otitis Media with Paralysis of the Sixth Nerve (Gradenigo Symptom-complex.—Douglas Guthrie. "Edinburgh Medical Journal," July, 1917.**

The writer describes a case of this unusual complication and gives a synopsis of the literature on the subject.

A Canadian soldier, aged twenty-one, was admitted to hospital suffering from acute otitis media. The right ear had been discharging for three weeks, and there was severe and persistent pain in the ear and temporal region. There was a history of old standing chronic otitis with occasional acute exacerbations.

The right drum had a large perforation from which small polypi were protruding. The discharge was mucopurulent and non-foetid. There was no mastoid tenderness or any sign suggestive of labyrinthitis.

On the day after admission the patient complained of double vision and was found to have a complete paralysis of the sixth nerve, as is shown in the photograph.

As the severe pain continued, a radical mastoid operation was performed. The bone was distinctly "pneumatic" in structure, and most of the cells contained sticky mucopus. The dura was exposed and separated a little from the petrous bone, but no pus was here encountered.

Though much troubled by hiccough for a few days, the patient made good progress and the mastoid cavity became dry and clean.

The ocular paralysis improved so that full "abduction" of the right eye was possible two months after the operation.

A year later the patient reported that since his discharge from the Army he had been able to do light work on a farm.

Discussing the case, the writer states that otogenic paralysis of the sixth cranial nerve was first investigated by Gradenigo, who recorded a number of cases of "acute middle-ear suppuration accompanied by intense unilateral headache and paralysis of the abducent nerve."

The pathology of the condition is interesting, though it has been worked out in only a few cases.

Gradenigo, who collected fifty-three cases, describes five which were examined *post-mortem*. An abscess at the petrous apex was found in three cases, in the remaining two there was a carious focus in the same situation. Gradenigo suggests that the spread of infection takes place from the tympanum along the cells surrounding the Eustachian tube towards the apex of the petrous temporal. The sixth nerve, as it traverses the space of Dorello, is liable to be pressed upon and involved in any suppuration affecting the apical cells of the petrous pyramid.

Dorello's space is the triangular osseo-fibrous canal bounded by the petrous apex, the posterior clinoid process, and the petro-sphenoidal ligament.

Wilkinson has described a case of Gradenigo symptom-complex which proved fatal from meningitis. *Post-mortem* revealed an abscess cavity at the apex of the petrous pyramid and the track of infection was clearly demonstrable. Wilkinson thinks that such an abscess might be drained by stripping the dura from the bone.

Barr has described two cases, in which there was also optic neuritis, but which both recovered completely.

Two cases, in children, were seen by McNab, and in each case recovery followed the mastoid operation.

Mayo Collier, and Mounier have had cases in which the paralysis was bilateral, while Furet has observed a contralateral case.

Author's Abstract.

Post-operative Treatment of Mastoiditis by the Carrel-Dakin Method.
—P. Moure and E. Sorrel. "Rev. de Laryng., d'Otol., et de Rhinol.," October 30, 1917.

The technique, as regards chemical constitution of Dakin's solution and Carrel's arrangement of rubber tubes, is fully described, and need not be abstracted here, since the war has familiarised it in so many British and French hospitals. But there are special points demanding mention. The surrounding skin must be protected against irritation by sterile vaseline, paraffin, or other greasy substance. (The French preparation "Gras Lumière" is excellent.—Trans.)

Excepting when the lateral sinus or an emissary vein has been opened (when the early shifting of clots would be risky), irrigation should begin two hours after operation, and be repeated every two hours. When any vein has been opened, begin forty-eight hours after operation. The dressings should be changed at least every second day. As a sequela of irrigation, even with cold solution, labyrinthine irritation has, in the writer's experience, never occurred. The unpleasantness caused by occasional penetration of liquid through the Eustachian tube is only transitory. A bacteriological control is kept by the systematic enumeration of organisms collected in a drop of pus in a platinum loop; the method described is exactly the same as in Carrel's original monograph. If the microbic count rises during treatment an intracranial complication may be suspected; the authors quote a case where this application of the method led to the discovery of a cerebral abscess. An arbitrary figure of one micro-organism to every two microscopic fields is given as indicating that healing is well under way. As a means of checking post-operative progress, the microbic count is more informative than a leucocyte count, which should, however, in all cases supplement the former at regular intervals.

From a series of tabulated results the inference to be drawn is that better results obtain in a mastoiditis, which is the *immediate* sequela of an exanthem, than in the ordinary cases resulting from chronic otitis media.

The Carrel-Dakin treatment in a majority of cases aborts the period of cicatrisation, and leaves a much smaller scar; the dressings are painless.

The authors detail the histories of twenty cases, each exemplifying some of the points epitomised above. The paper deserves study in the original.

H. Lawson Whale.

Diagnosis of Otitic Cerebellar Abscess.—Alfred Braun. "Rev. de Laryng., d'Otol., et de Rhinol.," October 15, 1917.

Of eighty-six cases of cerebellar abscess, eighty-five were otitic in origin.

Apart from lesions of cerebellar centres themselves, it is noteworthy that injury to commissural and association fibres *between* these centres produce symptoms resembling those of vestibular lesions; lack of recognition of this point would give rise to obvious errors of diagnosis. The tests quoted by the author, for cerebellar lesions, are now familiar. But

he gives some interesting everyday examples of cerebellar ataxia or hypermetria. As that the patient, if asked to draw a series of horizontal lines to end in a given vertical line, cannot check his pencil; so that the horizontals straggle widely and irregularly beyond the vertical. Also he makes his O's and C's polygonal. The author reminds us that nystagmus on deviation, or due to caloric stimulation, tends to last a much longer time in cerebellar lesions than in labyrinthine disease.

H. Lawson Whale.

MISCELLANEOUS.

Ocular Complications of Dental Affections.—Juan de Cruz Correa. "Rev. de Laryng., d'Otol., et de Rhinol.," September 30, 1917.

In two very similar cases described the chain of evidence definitely incriminated a molar tooth and the maxillary antrum.

One patient suffered from palpebral œdema, the other from conjunctivitis. Both were cured by dental extraction.

Among theories as to ætiology, Dr. Correa discusses "reflex" origin from the tooth, blood infection, toxæmia, and lymphatic spread from antrum to orbit. The last hypothesis will meet with most general favour.

H. Lawson Whale.

Diagnosis of Early Pulmonary Tuberculosis.—J. I. Johnston (Pittsburg). "Amer. Journ. Med. Sci.," July, 1917.

The writer refers to the vital importance and frequent difficulty of the diagnosis of early curable tuberculosis. Suspicious cases must be worked out to a confirmation by all available means. Sputum analysis is only of value when it gives a positive result. X-ray examination is inconclusive because, while damage to the lung may be apparent, no indication is given as to the activity of the disease, and the only tuberculosis of the lung that concerns us is active tuberculosis. The complement-fixation test devised by Craigie is likely to be of great value in that it not only discloses suspected cases in which physical signs are absent, but shows also that cases which are considered in a state of cure are not entirely free from infection so long as this test is positive. Pulmonary tuberculosis which can be positively diagnosed at the first examination is an established condition associated with permanent damage. An immediate diagnosis is sometimes impossible, and a statement made to the patient that one can find no active tuberculosis is an honest one, no matter what subsequent developments may occur.

Thomas Guthrie.

OBITUARY.

DR. W. H. JAMIESON, MONTREAL.

DR. JAMIESON had many friends on both sides of the Atlantic. Many of us remember him as one of the pleasantest and cheeriest of Resident Medical Officers at the Throat Hospital, Golden Square, and were glad to meet him again when the British Medical Association met in Toronto in 1906.

He has for many years been associated with the Royal Victoria Hospital, Montreal, where, as First Assistant, he carried on the Throat Clinic during the absence of Dr. Birkett with the Army in France. He died suddenly last winter from a central nervous lesion.