

## ABSTRACTS

### EAR.

*Treatment in Deaf-mutism of the Congenital Syphilis Type.* G. DIDIER.  
(*Oto-Rhino-Laryngologie Internationale*, July 1921.)

Neuro-labyrinthitis in cases of congenital syphilis is usually thought to be incurable. The writer quotes a case where the usual treatment by arsenic and mercury gave a good result. His conclusions regarding the case were as follows:—

(1) The hearing in the right ear, which had been damaged for many years, was not benefited by the treatment.

(2) In the left ear, where the disease had been apparent for only a few months, hearing was much improved.

(3) The results of treatment in the left ear showed remissions on two different occasions, as shown by the hearing tests. The auditory apparatus became affected at different times. On the left side, when treatment was commenced, the disease was still active and was able to be held in check. On the right, the damage had been done and the ear was incapable of improvement. GAVIN YOUNG.

*Local Anæsthesia for Simple Mastoid Operations.* E. E. KOEBBE, B.S.,  
M.D., Lieut.-Commander, Medical Corps, U.S.A. Navy. (*The Journ. Amer. Med. Assoc.*, vol. lxxvi., No. 29, 14th May 1921.)

The paper deals with seventy-two patients between 15 and 32 years of age, in whom the simple mastoid operation was performed under local anæsthesia. Prior to the operation the words "mastoid" and "operation" are avoided; other expressions are used such as "opening the bone" or "getting out the pus." Care is taken to have the patient resting comfortably on the table, and he is not brought to the table until all preparations have been completed. During the operation it is advantageous for the operator to carry on a conversation which has no bearing on the operation.

The technic is as follows: 1 per cent. procain with from 1 to 2 drams of 1-1000 epinephrin solution to the ounce is used. Each is boiled separately, and the total amount injected is from 6 to 8 c.c. An ordinary 2-c.c. Luer syringe with a No. 23 gauge 1-inch needle has been used. The subcutaneous tissues are first infiltrated, beginning at a point directly posterior to the external auditory meatus in the line of incision and following the line of incision to its most upper and anterior point, and then downward anterior to the pinna as far as the level of the tragus. The next infiltration begins at the same point as the first, and extends downward to about one inch below the mastoid tip. At this point a slightly deeper injection is made; this effectively blocks

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the great auricular nerve. Directly below the mastoid tip a deeper injection is now made; this blocks the posterior auricular nerve. The branches of the small occipital nerve are blocked about one and a half inches posterior to and on a level with the external auditory meatus. The needle is now inserted from behind the ear into the posterior wall of the external auditory canal, nearly to the attachment of the tympanic membrane. This step is very important, as the patient, if this injection is not made, will experience pain when the periosteum around the canal is elevated and the pinna is pushed forward. Finally, the needle is thrust under the periosteum in four or five places, so that the anæsthetic completely infiltrates all the periosteum that is to be elevated. All this is done before the skin incision is made, and it is not necessary to use any more anæsthetic after the operation has been begun.

The operation itself differs in no way from that ordinarily carried out. The author in his cases used an electrically driven burr to make the first opening in the bone, and he completed the operation with rongeur forceps and curettes in the usual manner.

As thirty-five of the cases were preceded by measles with its bronchial complications, the disadvantage of general anæsthesia was avoided. One patient was operated upon on the third day of his pneumonia and his mastoid wound was healed in twelve days.

The method is applicable to all patients except children too young to be reasoned with. The patients operated upon did not complain of any undue distress; some, the author says, fell asleep, and in those who had to have the other side operated upon there was no objection to local anæsthesia.

PERRY GOLDSMITH.

### *Operation under Local Anæsthesia in Cases of Fistula of the Labyrinth.*

R. BÁRÁNY. (*Acta Oto-Laryngologica*, Vol. iii., fasc. 1 and 2.)

The use of local anæsthesia for the radical mastoid operation was introduced by Neumann fifteen years ago. It does not appear to have been widely adopted, but Bárány considers that it should be employed in cases of labyrinth fistula with functioning labyrinth. The operation is not pleasant for the patient, as he is apt to suffer from severe vertigo and vomiting, but local anæsthesia is nevertheless advisable, because only in this way can the fistula be completely protected from injury. Contact of instruments with the affected area becomes immediately obvious, although the fistula itself may not be visible. The object is the avoidance of post-operative labyrinthitis and of post-operative deterioration of the hearing, which otherwise is to be expected in a majority of these cases, even after the most careful manipulation. In six of the author's cases dealt with by this method the operation was followed by only slight symptoms of labyrinth disturbance, and the hearing was either improved or no worse than it was before. In a

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seventh case in which cholesteatomatous material had to be removed from the fistula, the operation was followed by nystagmus and increased loss of hearing.

THOMAS GUTHRIE.

*Vestibular Shock: A Contribution to our Knowledge of Sudden Attacks of Vertigo with Loss of Consciousness.* GOTTFRIED TRAUTMANN. (*Münch. Med. Wochenschrift*, Nr. 35, Jahr. 68.)

These cases may be differentiated from others which exhibit the Menière symptom complex in that the exciting lesion confines itself to the vestibular apparatus and is not accompanied or followed by disturbances of audition.

Two interesting examples occurring in patients of middle age and in good health are quoted in full. They were examined within two hours of the onset of the attack. In both cases unconsciousness succeeded the sudden onset of symptoms of violent vestibular irritation, which set in without apparent cause. Upon the return of consciousness, which was not long delayed, the vestibular and auditory apparatus were examined by modern methods. This showed that the labyrinth was in a state of abnormal excitability, whilst the hearing remained normal. Within a short time in both cases the vestibular apparatus again reacted in a normal manner, and complete recovery eventually ensued.

In these cases it is only permissible to speak of an injury to the vestibular apparatus, as there is no definite indication for attributing the attacks to hæmorrhage. In cases due to embolism, it is conceivable that the vestibule or cochlea will suffer alone or in unison, according as the obstruction takes place before or after the internal auditory artery divides into its vestibular or cochlear branches.

Though the increase of endolabyrinthine pressure as a result of venous congestion is a debatable point, it will be realised that should such occur the cochlea will most readily suffer when the inferior petrosal sinus is obstructed, and the vestibule when the transverse sinus is at fault. In any case an increase of the endolabyrinthine pressure, either localised or diffuse, must injure the sensory end-organs, even when, as in the cases cited, the increased pressure is not of auditory origin. The occurrence of an increased amount of fluid in these cases may in the etiological and pathological sense be likened to glaucoma, urticaria, or an acute circumscribed idiopathic oedema.

In considering the etiology of such cases it is necessary to exclude intoxications such as nicotine, and also reflexes from other organs.

The author suggests that the true cases of vestibular shock or apoplexy are of hæmorrhagic origin and of bad prognosis, whilst the other forms, similar to those described, are of an angioneurotic nature. If the affection is presumed to be of the latter type, other signs of angioneurosis should be sought for, especially on the skin.

JAMES B. HORGAN.

## Pharynx

*Drugs as a Causative Factor in Neuro-Labyrinthitis.* WILLIAM G. SHEMELEY, Jr., M.D., Philadelphia, Pa. (*Journal of Ophthalmol., Otol., and Laryngol.*, February 1921).

In susceptible persons, the administration of arsenic, mercury, quinine, aspirin, or salicylates is liable to cause neuro-labyrinthitis. Not only may this condition readily be mistaken for an aural manifestation of syphilis, malaria, or rheumatism, but the differential diagnosis may still further be obscured by concurrent suppurative otitis.

Dr Shemeley has noted the following distinctive features. The onset is usually acute with deafness, tinnitus, and vertigo. There is spontaneous nystagmus to the sound side and diminished caloric reaction on the affected side. Otosopic appearances are unaltered, except in the presence of herpes zoster of the tympanic membrane.

It is possible to differentiate between neuro-labyrinthitis and otitis interna by means of the galvanic tests. During the irritative stage of the former, the normal catelectrotonus of the nerve is intensified, so that a cathodal stimulus of 1 ma. produces nystagmus; in the latter 7 ma. is the average minimal current. Should atrophy ensue, an 18-ma. current gives no reaction. Further refinements of the test are possible. Again, implication of other cranial nerves is common in toxic affections: pareses (Bell's palsy excepted) are rare in otitis.

Three detailed case-reports prove that the subject holds for the investigator a wealth of instructive data, particularly in its ophthalmic aspects.

Clearly, in the treatment of syphilis by neo-salvarsan, any disturbance of the auditory or static functions with altered labyrinthine reactions after each injection is a strong indication for resort to other remedies.

Cases of neuro-labyrinthitis due to tobacco, alcohol—especially wood alcohol—lead, and carbon-monoxide poisoning occur from time to time.

W. OLIVER LODGE.

## PHARYNX.

*Report on the Shick Test and Toxin-antitoxin Immunisation at the Children Home, Winnipeg.* Dr GORDON CHOWN. (*Canadian Medical Association Journal*, Vol. xi., No. 5, May 1921.)

This report is presented to stimulate a more general interest in the subject, with the hope that our children in the various public institutions may receive the benefit of the immunity against diphtheria afforded by antitoxin injections. The number tested was 156. Some slight difficulty may be experienced in the interpretation of the results owing to the occasional pseudo-reaction. This reaction is

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seen in relatively few of the older children, but in a much larger number in adults, in whom it is important to recognise and control both by the injection of heated toxin and by observing the clinical course of the reaction. It was noted that eleven of the cases with a previous history of diphtheria gave a negative Shick reaction while seven gave a positive reaction, indicating that an attack of diphtheria does not absolutely protect against another attack.

The positive cases number 92 (a trace of redness at the end of ninety-six hours was termed positive). One cubic centimetre of toxin-antitoxin was administered to all positive cases, and in no instance had the administration been followed by a severe reaction. The author thinks that steps should be taken to urge the more general adoption of the test, not only in institutions but in schools.

PERRY G. GOLDSMITH.

### PHARYNX AND NASO-PHARYNX.

*Some Remarks on Tonsillectomy and Adenoidectomy.* L. M. HUBBY.  
(*Medical Record*, 16th April 1921.)

The indications for tonsillectomy are :—

1. Hypertrophy sufficient to cause mechanical obstruction.
2. Manifest pathological conditions of tonsils, with crypts exuding infective material.
3. A history of repeated infections.
4. Cervical adenitis, especially if tuberculous.
5. General diseases such as acute articular rheumatism, arthritides, endocarditis, glomerular nephritis, appendicitis, but only during the quiescent stages.
6. Thyroid disease.

The indications for the removal of adenoids are :—

1. Obstruction in the naso-pharynx sufficient to cause mouth-breathing.
2. Any demonstrable growth of lymphoid tissue in the naso-pharynx.

Contra-indications are :—

Diabetes mellitus, acute rhinitis or tonsillitis, acute stages of rheumatism, endocarditis, etc., conditions of low nutrition, all diseases associated with fever, status lymphaticus, and hæmorrhagic diathesis.

In order to remove tonsils the writer prefers the Sluder method, modified in the case of adults by the use of a combined snare guillotine, of which the Braun is possibly the best type. He usually employs an electric suction-tube throughout for keeping the field clear of blood and saliva. For the hæmorrhage which occasionally occurs, the application of adrenalin solution followed by 12 per cent. argent. nitrat. solution to the tonsillar bed is recommended. Contrary to the usual English custom he employs a mild antiseptic saline spray to the nose and throat every three hours for a few days following the removal of tonsils and adenoids.

LINDLEY SEWELL.

## Nose and Accessory Sinuses

*The Essential Causes of Adenoids and their Association with Rickets.*  
H. MERRALL. (*Lancet.*, Vol. ii., 1921, p. 994.)

H. Merrall's paper with this title is a valuable one. His summary is as follows:—A naso-pharyngeal catarrh extending into the alimentary canal and affecting both digestion and assimilation; exaggerated lymphocytosis and swollen lymph glands rapidly losing their protective influence owing to fibroid changes; the swallowing of large quantities of infected mucus, a drain on the system from the over-production of lymphocytes causing anæmia—to say nothing of the abnormal secretion of the connective-tissue element containing mucin and of the lessened alkalinity of the blood. The chief cause, excluding the exanthemata, is the mainly disregarded frequently recurring colds.

MACLEOD YEARSLEY.

### NOSE AND ACCESSORY SINUSES.

*Sinus Surgery as applied to the Eyes and General Health.* J. IVIMY DOWLING, M.D., F.A.C.S. (*Journal of Oph., Otol., and Laryngol.*, April 1921.)

Ónodi and others have shown that the nasal accessory sinuses are rarely sufficiently developed to require operative treatment before the fifth year of life. Nevertheless, catarrhal conditions sometimes persist after removal of adenoids in children, and remain a menace to health. When this state of affairs is due to sinus infection it may generally be overcome by daily irrigation of the nose.

In adolescents and adults, nasal sinus disease—which is so liable to give rise to neuralgia, lachrymal infection, mastoid infection, etc., etc.—is best treated by operative methods directed to the establishment of proper ventilation and the promotion of natural drainage.

An important link between intra-nasal disease on the one hand, and headache, neuralgia, and ocular diseases on the other, is the sphenopalatine ganglion, located posterior to the middle turbinate, at which point, according to Sluder, it may be injected.

Disease of the nasal accessory sinuses may (Dr Dowling believes) be an important factor in the etiology of glaucoma. To Knies' "specific glaucoma toxin" theory the following original corollary is added: "The infected sinuses act as natural laboratories in which the germs multiply and develop toxins which may be conveyed by way of vascular or lymphatic channels to the uveal tract, and so occasion the change from crystalloid to the colloidal state, *this change being the sine qua non of glaucoma.*

The typical neuralgic condition of tic douloureux should suggest the maxillary sinuses primarily, because the dental nerves are superficially located within the maxillary sinuses, and these cavities when diseased will cause very definite symptoms of neuralgic type.

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Another important consideration is the location of the pituitary gland. After operations upon the posterior ethmoid and sphenoid cavities, in one case, a gain in weight of from 20 to 40 lb. occurred. In another case, in addition to an increase in weight, the phalangeal joints became enlarged and the patient acquired some of the characteristics of acromegaly.

Cushing suggests that infection of the pars nervosa sometimes gives rise to polyuria. Dr Dowling has twice observed, after extensive intranasal operations, a greatly increased excretion of urine, in one instance as much as 90 oz. having been passed per diem.

Finally, some relation would appear to exist between empyemata of the nasal sinuses and epilepsy.

In the discussion of the above paper at a meeting of the O. O. and L. Society, Dr Rumsey, of Baltimore, described a case of epilepsy relieved by operation on diseased frontal and ethmoidal sinuses. He also added acidosis in the young to the group of obscure maladies which apparently are influenced by infection of the nasal accessory sinuses.

WM. OLIVER LODGE.

*Report of Four Cases of Radical Frontal Sinus Operation with Unusual Pathological Findings.* Dr F. O. LEWIS. (*Laryngoscope*, Vol. xxxi., p. 179.)

Dr Lewis publishes the result of four frontal sinus cases, all of which had had from two to five previous operations. He found intra-tracheal anæsthesia very useful. Intra-nasal operations had been unsuccessful in these cases, and Dr Lewis shows how necessary it is in chronic infections of long duration to remove every vestige of disease. He proposes to do plastic operations later to get rid of the deformity.

ANDREW CAMPBELL.

*Congenital Occlusions of the Choanæ.* Prof. J. MOURET and D. P. CAZEJUST. (*Revue de Laryngologie*, March 1921.)

This article is interesting chiefly on account of a well-illustrated description of the development of the nasal fossæ for which the writers acknowledge themselves to be largely indebted to Professor Vialleton. They reject the view that congenital atresia of the choanæ is due to persistence of the upper part of the bucco-pharyngeal membrane for two reasons—(1) An occlusion so caused would be situated posterior to the level of the choanal openings; (2) If the occlusion were imperfect, one would expect to find the gap at the lower part of the partition, whereas it is the upper part which is deficient in cases of partial atresia. The explanation put forward by them is that the nasal fossæ are the result of the enlargement of the primitive nasal cleft by the growth of the epithelium lining them. This forms certain folds

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which constitute the turbinals, and inferior and middle meatuses. Occlusion of the choanæ takes place owing to interruption in the backward extension of the grooves forming the two meatuses.

Dealing with the operative treatment of the obstruction, the writers insist on the great importance of a free removal of the posterior part of the vomer and septal mucous membrane covering it, as first carried out by Dan M'Kenzie in 1910.

G. WILKINSON.

### *Perforations of the Nasal Septum due to Inhalation of Arsenious Oxide.*

LAWRENCE G. DUNLOP, S.B., M.D., Anaconda, Montana. (*The Journ. of Amer. Med. Assoc.*, Vol. lxxvi., No. 9, 26th February 1921.)

This paper deals with septal perforations due to the inhalation of arsenious oxide dust among the workers in the arsenic department of the largest copper mine in the world—Anaconda, Montana. The septal mucosa at Kiesselbach's area is the point where perforation takes place. The impinging of the air currents at this point tends to keep it irritated, while the presence of deflections or spurs adds to the ease with which irritating dust may collect. When the dust consisting largely of arsenious oxide enters the nose and comes in contact with moisture, arsenious acid is formed which causes the necrosis. At first a white slightly elevated area about 5 mm. in diameter develops. If this area is then protected by an oily mixture containing camphor and menthol, the elevated area will return to normal and will even do so if the mucosa is ulcerated sufficiently to expose the cartilage. Workmen are, however, careless, with the result that a similar process takes place on the other side of the septum and the cartilage disappears by dystrophy. Extensive destruction is not infrequent, but a saddle-back nose is rarely seen. The perforation when complete has the appearance of a squarely amputated finger, the cartilage being flush with the mucosa. The cartilage is often very greatly thickened causing nasal obstruction, while the mucosa in the acute stage is enormously thickened, and tends to retract from the septum as in a submucous resection. The formation of crusts adds to the discomfort. Slight epistaxis is frequent during the first few weeks of the ulcerative stage. In ten consecutive cases the Wassermann test was negative.

Prophylaxis is best carried out by the use of the camphor and menthol mixture in oil. Masks and nasal plugging lead to other disagreeable conditions, and are not advised. The nasal obstruction may be relieved in some cases by removing the thickened cartilage and producing a condition as in a submucous resection. The perforation if small may be closed over by a plastic operation, but if large, a mechanical obturator may be advised to relieve the objectionable crusting.

PERRY GOLDSMITH.