

Ear

when that was removed, the great improvement in the hearing was out of proportion to what one was accustomed to see in civil practice. In some cases, one successful Eustachian catheterisation altered the aspect of the patient altogether: he brightened up at once and took a totally different view of life. Similarly, tightening up a relaxed membrane by means of collodion would do it, as also the removal of nasal obstruction. Therefore, the deafness in those cases was not due alone to organic changes, the psychical factor playing a large part.

With regard to caloric tests, he thought, with Dr Hurst, that if there was absence of vestibular reflex, the deafness should be put down as of organic origin. The converse, however, was not always true: although the vestibular reflex might be present, the deafness might be organic. He thought there was a greater degree of vulnerability of the acoustic part of the nerve than of the vestibular.

Dr A. A. GRAY said he believed Falstaff's words were:—"This apoplexy, I take it, is a kind of deafness," which voiced the idea that there was an association between apoplexy and deafness.

ABSTRACTS

EAR.

Local Anæsthesia in Aural Operations. GUNNAR HOLMGREN.
(*Acta Oto-laryngologica*, Vol. iv., fasc. 3.)

This paper refers especially to local anæsthesia in mastoid and other major operations on the ear. A short historical survey is followed by a detailed description of the author's technique. A hypodermic injection of morphia or pantopon is given half an hour before the operation. A 0.5 per cent. novocain-suprarenin solution is injected subcutaneously from two sites, the upper a couple of centimetres above, and the lower two or three centimetres below, the attachment of the pinna. From each of these points about 10 c.c. are injected in front of the ear and 10 to 15 c.c. behind it, in such a way that "it embraces the whole field of operation in every direction as a coherent mass." Moreover, "one must manage so that the mass spreads outside the air-filled area of the temporal bone, that the lower part of the temporal muscle and the tendon of origin of the sterno-mastoid and its uppermost part are also infiltrated, and that the infiltration is also made in the place for the skin incision." After this, a syringe is inserted exactly behind the wall of the meatus and directed upwards, inwards, and backwards so as to strike the bone of the supra-meatal spine where 5 c.c. are injected. A similar quantity is injected exactly in front of the meatus, the point of the syringe in this case being directed so as to strike the root of the

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zygoma. After an interval of five to ten minutes the soft parts and bone are found to be completely anæsthetic. The antrum, tympanic cavity, and Eustachian tube are anæsthetised by the application of a 40 per cent. solution of cocain in suprarenin (1-1000) which produces a quite satisfactory, though not absolute anæsthesia.

During the year 1921, in the Sabbatsberg clinic 84 major operations on the ear were performed under local anæsthesia, including 34 Schwartz and 40 radical mastoid operations. During the first three months of 1922, of 124 major operations, 64 were done under local anæsthesia, one of them being a translabyrinthine operation for acoustic tumour. All children under fifteen years of age of whom there were 36 in the first quarter of 1922, were operated on under general anæsthesia, so that in adults local anæsthesia was actually used in nearly 85 per cent. of the cases, and has become the standard method. The chiselling gives rise to some discomfort, but this is minimised by proceeding slowly and using sharp chisels and a wooden mallet. Nervous patients are soothed beforehand by the promise that general anæsthesia will be at once induced if they call for it during the operation, but during the past six months no such request has been made.

Great stress is laid on the advantage of the comparatively bloodless field, given by local anæsthesia, and on the fact that the functions of the facial, auditory, and vestibular nerves can be tested during the operation. The author believes that the introduction of the modern methods of local anæsthesia in otological surgery constitutes the greatest step forward during the last decade.

THOMAS GUTHRIE.

Streptococcus Hæmolyticus Mastoiditis. A. M. DUNLOP.
(*Laryngoscope*, Vol. xxxii., No. 10, p. 733.)

A series of 15 cases are carefully recorded, all requiring a simple mastoid operation. Some of the cases were bilateral. The source of infection, an inflammation of infective and epidemic type, was in the throat and nasopharynx. The characteristic features of the mastoiditis were (a) absence of definite signs, *i.e.*, no mastoid tenderness, no sagging of the meatus, (b) rapidity of sequelæ in untreated cases, (c) no rise in temperature till after operation, (d) a profuse serous discharge, perhaps the most characteristic sign, (e) moderate leucocytosis count, 12,000-16,000, (f) pure or predominant cultures of streptococcus hæmolyticus from the mastoid cavity. There are three post-operative stages (1) profuse serous discharge, followed by (2) profuse mucopurulent discharge and abundant granulations (3) less mucous discharge and less active or even flabby granulations. The streptococcus persists in the wound for a very considerable time

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after operation, and in the one fatal case the meningitis occurred one month after the mastoid operation, and no portal of entry could be found. The post-operative stage is also characterised by a swinging temperature which gradually settles down. A bacteriological examination of the discharge is urged in all cases.

ANDREW CAMPBELL.

Two Cases of Intracranial Complications of Acute Ear Disease. PETER MACDONALD, M.D., and J. ACOMB, M.B., B.S. (*Brit. Med. Journ.*, 9th September 1922.)

CASE I. was influenzal in origin, with bilateral ear symptoms occurring in the first week; in the right ear, deafness, otorrhœa, and mastoid tenderness; in the left, deafness and mastoid tenderness without discharge. The right optic disc was slightly swollen—the left was doubtful. The right mastoid was opened, showing inflammation and granulations in the cells, but no pus; the left membrane was incised. The general condition improved, but the swelling in the optic discs increased. After a week a rigor occurred, and the right sigmoid sinus was explored with a needle, liquid blood being drawn off; the right jugular vein was exposed but appeared healthy. The temporo-sphenoidal lobe was explored with no result. The left mastoid was then opened and sinus thrombosis was found. Improvement again occurred and continued for three weeks, still with the eye symptoms unchanged, and then drowsiness and lethargy ensued. A further operation was arranged for, but before it took place a copious discharge of pus occurred in the right mastoid wound, apparently from a temporo-sphenoidal abscess, and the patient made an uninterrupted recovery.

CASE II. was one of long-standing intermittent otorrhœa with symptoms pointing to sinus thrombosis. The sinus was found to contain liquid pus and the same condition was found in the jugular vein. The latter was followed down to the clavicle but the lower limit of the pus was not reached. Streptococci were found in the pus and also in the patient's blood. Antistreptococcus serum and autogenous vaccine were used and the patient made a good recovery.

T. RITCHIE RODGER.

PHARYNX.

A Case of Diphtheria complicated by Hemiplegia with Aphasia.

H. GORDON SMITH. (*Lancet*, 1922, Vol. ii., p. 382.)

Patient was a girl aged 6. Diagnosis confirmed by a "positive swab." Antitoxin was given. She progressed satisfactorily until the fifteenth day, when difficulty in swallowing and a nasal voice occurred. Next day,

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vomiting and cyanosis occurred. Improvement took place forty-eight hours later. On the twenty-third day, complete right hemiplegia with aphasia developed. Patient discharged about three months after the commencement of the illness. She had regained some power in the leg and arm, and her speech was improving slowly. The heart was normal.

MACLEOD YEARSLEY.

The Antitoxin Treatment of Diphtheria of the Throat.
VALDEMAR BIE. (*Acta Medica Scandinavica*, Vol. lvi.)

As the result of many years of observation and research on this subject, the author has come to the following conclusions:—(1) The effect of a dose of antitoxin, large or small, on the temperature in a case of diphtheria is nil. (2) The tendency for diphtheria to affect the larynx and trachea, less and less, during the last ten years, cannot be ascribed entirely to the introduction of antitoxin, but rather to a modification in the type of the disease. (3) The administration of antitoxin hastens the disappearance of membrane, but only to a slight degree (average nine days reduced to seven). (4) A great advance has been made in the treatment of very bad cases, by administering, by intramuscular or intravenous injection, large doses of antitoxin—*e.g.*, 160,000 to 220,000 units in first twenty-four to thirty-six hours, thereby (*a*) entirely avoiding death as a consequence of paralysis of respiration; (*b*) reducing death-rate in these severe cases to less than one-third of former rate.

J. B. CAVENAGH.

Infection of the Pharynx by a Watch. PHILIP H. HILL.
(*Lancet*, 1922, Vol. ii., p. 508.)

Male, aged 32, in an attack of acute delirious mania during pneumonia, tried to destroy himself by swallowing a watch. He was cyanosed, struggling violently, and in great distress. The finger passed into the pharynx felt the watch lying transversely. Owing to the man's violence it was impossible to dislodge it by the finger in the bow, or by curved forceps. During the attempt, the heart failed suddenly and the man fell back dead.

MACLEOD YEARSLEY.

LARYNX.

Laryngitis due to Zinc Vapour. CURT NURNBERG. (*Archiv f. Ohren-, Nasen-, u. Kehlkopfheilkunde*, Bd. 109-11, 1922.)

Nurnberg describes a severe form of laryngitis occurring in a carpenter who worked over a room in which iron articles were dipped into hydrochloric acid and then into liquid zinc. Ventilation of the room, which was detached from the main factory and was being only

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temporarily used for the process, was suspended owing to shortage of fuel for the engine which drove the electric fan. The patient did not smell any fumes from the acid, with which he was familiar, and to which he was very susceptible. There was no question of diphtheritic infection.

The onset of the laryngitis was severe, œdema of the glottis being threatened. A membranous inflammation of the true and false vocal cords, with swelling and discoloration of the epiglottis, arytenoids, and surrounding parts left fine granulations in its train, healing being completed in six weeks. Injections of 10 per cent. Ol. Menthol gave much relief in the early stages of the affection.

Nurnberg summarises the literature of affections of the upper respiratory tract caused by zinc, ulceration and necrosis in the nose being most frequently recorded. Zinc may be found in the urine of these patients, but its appearance is inconstant, so that it is not a reliable diagnostic feature.

WM. OLIVER LODGE.

A Case of Joint Affection in the Larynx with Gonorrhœa. NILS RHODIN. (*Acta Oto-laryngologica*, Vol. iv., fasc. 1.)

The author was able to find records of only eight cases of gonorrhœal arthritis of the larynx. He describes a case of his own in which the left crico-arytenoid joint was affected, there being marked swelling of the left ary-epiglottic fold and arytenoid, with complete fixation. No other joints in the body were involved. The condition cleared up quickly under intravenous injections of gonargin.

THOMAS GUTHRIE.

MISCELLANEOUS.

Calcium Chloride in Cocaine Poisoning. F. FABRY.
(*Münch. Med. Wochenschrift.*, Nr 26, Jahr. 69.)

The full record of a case of severe cocaine poisoning in a female patient aged 19, in which the theoretical deductions of Mayer, based on his experiments on animals, are fully confirmed.

The patient exhibited all the classical symptoms of cocaine poisoning, and in spite of the usual restoratives her condition was rapidly getting worse. Yet, within two minutes of making the injection, and before 2 c.cm. of the prepared solution of calcium chloride had been injected intravenously, a distinct and striking improvement was noticeable in the patient's condition.

JAMES B. HORGAN.