ABSTRACTS

THE EAR.

The Various Forms of Eustachian Tube. N. A. PAUTOW, Leningrad. (*Zeitschrift für Hals-, Nasen-, und Ohrenheilkunde*, Vol. xi., Part 4, 1925, p. 467.)

The author, as the result of making "corrosion casts" of the Eustachian tube, arrives at the determination of three types, the first fairly straight, the second S-shaped when looked at from above and straight when from the side, the third seen from above S-shaped and from the side bent downwards near its outer (tympanic) end.

The first form is the most permeable, and, therefore, permits of the readiest passage of infective material and the development of purulent otitis media. It occurs most frequently in brachycephalic and chæmoprosopic heads. The third form is the least permeable, therefore more favourable for the development of non-purulent catarrh. It occurs chiefly in the dolichocephalic and leptoprosopic types. The second form occupies an intermediate position in all these respects and appears to be found in about 50 per cent. of all cases. There seems evidence that radical mastoid operations dry up most quickly in the third form and most slowly in the first. JAMES DUNDAS-GRANT.

Primary Cancer of the Middle Ear. ALEXANDER HESCHELIN, Odessa. (*Acta Oto-Laryngologica*, Vol. vii., fasc. 3, 1925.)

Cancer of the auricle and of the external auditory meatus is not rare, and in its progress spreads to the middle and inner ear. Very much rarer are primary cancers of the middle ear. The first description of primary cancer of the middle ear was given by the father of otosurgery—Schwartze (1875).

Many cases of temporal bone cancer have been described, but as the patients come for examination in an advanced stage of the disease it is difficult to say if these cases have included primary middle-ear cancers, *i.e.*, originating in the mucosa of the cavum tympani.

As regards the etiology of primary middle-ear cancer there is little to be said. Prolonged irritation, as in other parts of the body, mechanical, chemical, inflammatory. Long-standing otorrhœa, sometimes unnoticed by the patient, is a likely factor. Some writers say that polypi, *i.e.*, granulations which epidermise on the surface, are causes. Middle-ear cancers are, however, flat-celled cancers; therefore their origin may be explained either by the metaplastic theory or the aberration or wandering cell theory.

There is much difficulty in diagnosing middle-ear cancer, as

symptoms and signs may be similar to those in chronic middle-ear suppuration. It may be necessary to examine material repeatedly under the microscope.

Leidler recommends early Roentgen examination. Most important are the unbearable pains occurring in spasms, resisting the strongest narcotic and accompanied by nausea, giddiness, and deafness.

The chief objective symptom is cachexia, and there occurs extensive destruction of bone excluding the resistant labyrinth capsule. Facial paralysis preceded by twitchings occurs early.

In Mathewson's case the whole of the bony labyrinth hung as a sequestrum in the mass of the tumour.

Metastases into distant parts are not observed and lymphatic glands are often untouched.

As regards prognosis the disease is of the shortest duration with early death. There is only one case in the literature which approaches a cure. Jansen cleared the whole tympanum of disease, with success, but the patient died three-quarters of a year later from a suspicious intercurrent disease. Some workers are of opinion that operation hastens death.

Concerning the histopathology the cancer is of the flat-celled type. It cannot be said that a cylindrical-celled cancer of the middle ear has been established. H. V. FORSTER.

On Improvement of Hearing by Artificial Drums with a Retrospect on an Unguent-Prothesis after Radical Operation. Dr FRIEDRICH PELTZER. (*Archiv. für Ohren-, Nasen-, und Kehlkopfheilkunde*, 114 Band, Heft 3/4, February 1926.)

From the earliest times artificial aids to hearing have been employed, and the distinction between air and bone conduction was known to Galen. Peltzer refers to upwards of a hundred contributions on artificial drums and appends a comprehensive bibliography. His personal experience of a prothesis after a radical operation might be perused with advantage by anyone possessed of a large perforation with an intact inner ear. Peltzer has for eleven years derived great benefit from introducing a strip of gauze anointed with a mixture of three parts of lanoline to one of white vaseline, a little boric acid, and a drop or two of oil of bergamot. Water or one in ten glycerine is added until the mass has a consistence between that of an ointment and a paste. The actual proportions may be varied according to climatic conditions. The prothesis is manœuvred towards the round window until a sudden augmentation of hearing power is appreciated, which should not be adversely affected by inflation. False positions and their effects are described; failure may occur just when benefit is most desired; a rest is then indicated. The hearing tests at different times are given in tabular form. W. OLIVER LODGE.

Abstracts

The Ether Treatment of Chronic Suppurative Otitis Media. Dr T. HUBBARD. (*Laryngoscope*, Vol. xxxiv., No. 12, p. 941.)

The treatment has been used for over four years and has given so much satisfaction that it can be recommended as a safe and easy method.

The ear is syringed before the treatment commences, but not again. The patient is placed in the recumbent position and the external auditory canal filled with anæsthetic ether. As ether boils at 95° F., it soon begins to boil gently owing to the body heat and in ten to fifteen minutes it has evaporated. The ear is then cleaned out with cotton wool; the patient can do this for himself. What pain there is, is of short duration and subsides long before the ether has entirely evaporated. The author has used this method during the last four or five years before recommending a radical mastoid operation. In favourable cases, there is considerable improvement within a week or a fortnight. If there is no improvement in two to three weeks, then it is time to advise a radical operation. ANDREW CAMPBELL.

Rapid Death of Infants following Operation on the Tympanic Antrum. GEORGES CANUYT and JEAN TERRACOL, Strassbourg. (*Revue de Laryngologie*, July 1925.)

The first case coming under the notice of the writers was that of an infant 8 months old, who was operated on for mastoid suppuration under light chloroform anæsthesia. The operation was quickly performed, the tympanic antrum was curetted, and the patient made a rapid recovery from the narcosis. Sixteen hours later the child was noticed to be very pale, pulse 140, and temperature 104° F. It died four hours later, with a temperature of 107.6°. Nothing to account for death was found at the autopsy.

Several other fatal cases (number unspecified), in which the course of events was similar, subsequently came to the knowledge of the writers. Four were reported privately to them by a surgeon to a children's hospital, and they gathered the impression that such operations in infants were regarded with a certain amount of dread by the specialist in children's diseases. They quote Auguste Broca to the effect that "he operated with a holy terror on the antrum of an infant." In all fatal cases the sequence of events appears to be the same, viz., a form of delayed shock with remarkable pallor, rapid pulse, and hyperpyrexia.

They make the following practical suggestions:

(*a*) A general anæsthetic should not be given.

(*b*) Operative interference should be of the minimum.
Incision of the abscess is often sufficient and curetting of the antrum should be dispensed with.

(*c*) No milk should be given for twenty-four hours following the operation. G. WILKINSON.

The Ear

A Case of Pneumococcic Meningitis with Apparent Cure followed by an Obscure Frontal Lobe Abscess. Dr H. S. WIEDER. (*Laryngoscope*, Vol. xxxiv., p. 609.)

On admission to hospital, the patient, a male aged 38, was found to be suffering from acute mastoiditis on the right side. There was very severe headache, staggering gait, nausea and vomiting, rotatory nystagmus to the left, and some stiffness and soreness in the muscles of the neck. A simple mastoid operation was done and the dura over the lateral sinus exposed. On the following day, Kernig's sign was present and the cerebro-spinal fluid showed early pneumococcal meningitis; 15 c.c. of 1 in 1000 optochin (ethylhydrocuprein) was injected intrathecally. As soon as pneumococcic antibody was available, it was injected after withdrawal of turbid spinal fluid.

In two days, there was marked improvement, but Kernig's sign was still present. Intravenous injections of antibody were now given, but as soon as the antibody was stopped, there was a marked change for the worse, but when given again, a change for the better took place. The patient recovered sufficiently to be allowed home, but returned very soon after, and now there was a dead labyrinth on the right side and no reaction of the superior semicircular canal of the opposite side, indicating intracranial pressure. As the patient was growing worse, the right cerebellar hemisphere was explored with negative results but relief to the patient. Once more he recovered sufficiently to be sent home. He returned soon after with incontinence, total apathy, weakness of the left side, inability to co-ordinate or converse and optic neuritis. His condition became progressively weaker and he died six months after the first operation. An autopsy showed an abscess of the right frontal lobe with a fibrous wall in which deposits of calcium were found.

The case is of interest because of the recovery from a definite pneumococcal meningitis. Whether the meningitis or the abscess commenced first, is unsettled. Pneumococcic antibody was used instead of anti-pneumococcic serum because very many more units of antibody are contained in the same bulk, which nevertheless is almost devoid of protein content, so that it does not give rise to anaphylactic reactions. In all, 1168 c.c. of antibody were used, of which 108 c.c. were injected intraspinally, 45 c.c. of 1 in 1000 optochin solution were injected intraspinally, and 75 c.c. of 1 in 2000 intravenously. ANDREW CAMPBELL.

The General Treatment of Septic Meningitis. Dr MALOENS, Brussels. (*Revue de Laryngologie*, 15th November 1925.)

The writer believes that antiseptic substances introduced indirectly into the cerebro-spinal fluid are not without effect. The preparation he recommends is "septicæmin," an iodised urotropin. Urotropin

given by the mouth appears in the cerebro-spinal fluid thirty to sixty minutes later. Given intravenously it appears more promptly. The activity of urotropin is largely attributable to the four amine groups it contains (hexa-methylenetetramide). The addition of iodine renders it more active and more penetrating.

The technique advocated is frequent lumbar puncture in association with intravenous injection of "septicæmin." The writer does not recommend intrathecal injection of the drug, as he states that such injections reach the meningeal spaces with difficulty, but pass out readily from the spinal cavity into the thecal veins. Abstraction of fluid by lumbar puncture excites increased secretion of cerebro-spinal fluid containing the antiseptic, which constitutes "a true natural lavage of the arachnoid spaces." As the pressure of the cerebro-spinal fluid exceeds that of the blood in the veins, the supply of the fluid from the choroid plexus is a true secretion, not merely a transudation. The fluid is also secreted via the perivascular lymphatic system, and this source assumes an importance of the first rank in cases of inflammation or irritation of the meninges. A "local permeability" is created, limited to the inflammatory area, which allows a whole series of bactericidal substances present in the blood to make their appearance in the fluid. (Pettit and Girard, and Cushing are quoted in support of this statement). Septicæmin should also be applied locally as a dressing to the post-auricular wound.

Two cases of purulent meningitis treated successfully by septicæmin are adduced in support of this thesis. G. WILKINSON.

NOSE AND ACCESSORY SINUSES.

A Simple Dacryocystorhinostomy for the Cure of Dacryocystitis. Dr F. M. HANGER. (*Laryngoscope*, Vol. xxxv., No. 6, p. 475.)

A number of special instruments are necessary: Myle's nasal speculum, Struycken's nasal forceps, a large lacrimal probe, a probe-pointed cannula, and the author's special right-angled straight punch forceps.

The lacrimal sac and duct are anæsthetised with cocain so that Theobald's No. 13 lacrimal probe may be passed into the nose. The probe is left *in situ* while the inferior turbinate bone and the area of the nasal duct is anæsthetised. Injection of the same area with novocain is recommended. The anterior attachment of the inferior turbinate is severed and the lower end of the probe in the inferior meatus is exposed.

The probe is withdrawn and the probe-pointed cannula is inserted, carrying a No. 3 silk thread twelve inches long, knotted on the probe

end. The end of the thread is caught and drawn from the nose and after the knot is cut off, threaded through a hole in the male blade of the author's special forceps and knotted so that it cannot be withdrawn from the blade. By pulling on the thread from above, the point of the male blade is brought against the probe end of the cannula. The cannula is slowly drawn upward. The male blade has no option but to follow in the track of the cannula and thread, forming a gutter with great ease. It is "fool-proof," and the most inexperienced operator can perform it.

This operation has been performed during the last five years with very satisfactory results—only one failure in sixteen cases. The after-treatment consists of the daily passage of a probe and the application of silver nitrate two or three times a week. There are illustrations which are self-explanatory. ANDREW CAMPBELL.

Concerning Radium Therapy of Ozæna. JOSÉ PÉREZ MATEOS. (*Revista Espanola y Americana de Laringologia, Otologia, y Rinologia*, Vol. xvi., No. 3, May 1925, p. 129.)

This is a preliminary report, but the author makes the following statements provisionally:

1. Ozæna is not an essentially microbic affection, either in origin or in its later evolution.

2. The most important factor in its production is a functional alteration in the pituitary membrane, trophic in character, caused frequently by endocrine disturbances or general infections which alter the vitality of the mucous membrane producing a simple atrophy. The bactericidal power of the secretions is modified and destroyed, so that a favourable medium is produced for the production and development of an abundant microbic flora which is the result and not the cause of the functional disturbances.

3. Radium in adequate doses exerts a useful effect in the local treatment of this disease, not by its bactericidal properties, but by its capacity of stimulating the mucous membrane, which restores the vitality and the bactericidal power of the glandular secretions.

The technique is simple. A tube of 30 mgms. of radium, with a platinum filter enclosed in a gum elastic catheter, is left for four hours inside each nasal fossa. Three applications are made at intervals of ten days. L. COLLEDGE.

Treatment of Ozæna by the Vaccine of Perez. GEORGES PORTMANN, Bordeaux. (*Revue de Laryngologie*, 30th November 1925.)

Portmann has made trial of Perez's vaccine in twelve cases of ozæna. Of these, he obtained complete disappearance of symptoms in two cases, and in eight considerable improvement, specially marked in the disappearance of fœtor. G. WILKINSON.

Abstracts

Contributions to the Study of the Sphenopalatine Ganglion. Dr S. L. RUSKIN. (*Laryngoscope*, Vol. xxxv., No. 2, p. 87.)

The anatomy of the sphenopalatine ganglion and its connections are considered in detail. Clinically, cases group themselves under four headings. (1) Sphenopalatine facial neuralgia, corresponding to the distribution of the 7th nerve; (2) sphenopalatine maxillary neuralgia; (3) sphenopalatine sympathetic neuralgia; (4) sphenopalatine ganglion cell neuralgia.

We must, however, consider sphenopalatine ganglion disturbance not as an entity, but rather as a combination of the above four syndromes. In disease of the sphenoid, ethmoid, and antrum, we often find all three giving the same symptomatology—it is now obvious that all three will produce their symptoms through the same ganglion and thus give clinically the same picture. For surgical purposes, we may consider the ganglion as a sensory unit supplying to a large extent sensation in the nose, the sinuses, the roof of the mouth, tonsils, and part of the pharynx. Near it lies the maxillary nerve, and the two together supply the integument of the cheek, the forepart of the temple, the lower eyelid, the side of the nose and the upper lip, the lining membrane of the nose, the mucous membrane of the upper part of the pharynx, of the antrum and posterior ethmoid cells; the soft palate, tonsil and uvula, and the glandular and mucous structure of the roof of the mouth.

Injection of the sphenopalatine ganglion is best carried out by way of the posterior palatine canal through the roof of the mouth. It is the only route in constant relationship to the ganglion. A 22-gauge platinum needle, 45 mm. long, mounted on a syringe at an angle of 45 degrees, is employed. The patient is in the supine position, and the posterior palatine foramen is located by palpating the edge of the hard palate and inserting the needle 5 mm. anteriorly and about 0.75 cm. medial to the second molar tooth. The needle is inserted through the posterior palatine foramen into the canal to a depth of 3.5 to 4 cm., and will then appear opposite the sphenopalatine foramen and directly in the ganglion. By advancing the needle 5 mm. deeper, the point comes to lie medial to the maxillary nerve, which can then be injected if necessary. This route may be employed to anæsthetise the nose and also for the surgery of the tonsils.

The paper is well illustrated with photographs of anatomical sections of the area involved. ANDREW CAMPBELL.

Acute Ethmoiditis with Rupture into the Orbit. ARTHUR C. JONES, M.D., Boise, Idaho. (*Annals of Otology, Rhinology and Laryngology*, September 1925.)

"The fulminating character of the acute ethmoiditis which breaks through into the orbit, leads me to believe that there may be a chemical

action produced by the bacterial growth which leads to the formation of carbon dioxide under great pressure, and that the etiology is not always a defect in the osseous boundaries." In supporting this theory the author draws attention to the following points. (1) The condition occurs at an early age in the majority of cases, when there is lack of firm bony development. (2) The position of the ethmoid labyrinth lends itself to the formation of a dead space. (3) In acute ethmoiditis there is early and complete blockage of the nose on the affected side. The ethmoid becomes an air-tight chamber from which it is easier for pus to perforate the orbital plate than to follow its natural channel into the meatus. (4) The bacteria multiply rapidly with the manufacture of carbon dioxide in large quantities. (5) Pus is found under great pressure mixed with air bubbles in some cases. Reports are given of three patients showing the condition. In one of the cases when the anterior ethmoidal cells were broken into there was a sound of escaping gas, followed by a spray of pus. NICOL RANKIN.

THE LARYNX.

The Thermolaringoscope. Dr LUIS SAMENGO. (*La Semana Medicale*, Buenos Ayres, 1925.)

Samengo has been impressed with the trouble caused during the practice of indirect laryngoscopy by the mirror cooling and requiring wiping of condensed moisture and warming again, with the consequent interruption of the examination or of therapeutic measures. He also considers the testing of the temperature of the mirror by placing it against the hand can only result in carrying organisms from the hand to the throat and vice versa, which is undesirable. Samengo has evolved a mirror which has an electric cable in the handle and has a small electric radiator between the mirror and the casing at the back. This is connected up to the pantostat and the mirror can be kept warmed just enough to prevent condensation and yet not cause discomfort to the patient. The author has also evolved a holder which is attached to the forehead so that the mirror may be fixed in position and both hands left free for any required manipulations.

F. C. ORMEROD.

Acute Œdema of the Glottis from Neosalvarsan. Dr ALFONSO TRIMARCHI, Pavia. (*Annales des Maladies de l'Oreille, du Larynx, du Nez et du Pharynx*, June 1925.)

Many instances have been recorded in general medical literature of phenomena due to intolerance to the arsenobenzols. Aural manifestations have been noted, but the writer has not seen any record of laryngeal crisis of this nature.

The patient, whose case is noted, was a girl of 20, suffering from

secondary syphilis, shown by mucous patches on the soft palate. There was no apparent lesion in the larynx. The Wassermann was positive. Examination of the urine, cardio-vascular system, and lungs gave a negative result. An injection of 0.15 gr. of novarsenobenzol administered in the dorsal decubitus was followed in about ten minutes by an attack of severe dyspnœa and cyanosis, spasmodic cough, stridor, and dysphagia. Relief was obtained by injection of camphor, application of heat to the feet and the precordial region, and by the spraying of adrenalin intralaryngeally. On inspection, the laryngeal mucosa in the region of the aryepiglottic folds was found to be very œdematous, and the cords were slightly reddened. The secondary manifestations rapidly disappeared in the next few days, and eight days after the first injection was given, a second dose of 0.3 gr. was administered, and the same train of dyspnœa and cyanosis was observed, relief being obtained as before. The full course of treatment, up to the full dosage of 0.9 gr. was carried out, always with the same result, but with marked benefit to the general condition.

GAVIN YOUNG.

Tuberculous Laryngitis. T. H. RUEDI, Davos. (*Archives Internationales de Laryngologie*, December 1925.)

The writer's experience is based on 2800 cases of tuberculous laryngitis treated at Davos. A large majority of these patients were treated with the electro-cautery.

The author draws attention to the following points:—

(1) Laryngeal tuberculosis is curable in a considerable number of cases.

(2) A few cases are cured, even when ulceration is present, by treatment directed solely to the pulmonary condition.

(3) No single case of primary tuberculosis of the larynx has been noted.

(4) The commonest site for initial tuberculous lesions is the interior of the larynx rather than the orifice, particularly the vocal cords and the interarytenoid space.

(5) The prognosis in cases where the cord is the seat of infection is twice as favourable as when the arytenoid region is affected.

The prognosis and treatment of tuberculous laryngitis are discussed. With respect to the latter, the author sounds a note of warning against a tendency to over-optimism as to the results of treatment with the electro-cautery. Whilst admitting the undoubted successes obtained by its use, he has had cases where the use of the electro-cautery has been followed by an aggravation of the disease. The author discusses the indications for and against this form of treatment.

MICHAEL VLASTO.

Peroral Endoscopy

PERORAL ENDOSCOPY

Carcinoma and Sarcoma of the Œsophagus: A Plea for Early Diagnosis. CHEVALIER JACKSON, M.D., Sc.D. (*American Journal of the Medical Sciences*, 1925, Vol. clxix., p. 625.)

This contribution consists of a series of 671 cases of malignant disease of the œsophagus observed in the Bronchoscopic Clinic at Philadelphia.

The author states that malignant disease of the œsophagus with its 100 per cent. mortality, is one of the greatest reproaches of modern surgery.

He points out that text-books still ignore the early stages of the disease, hence the surgeon never gets a chance of attempting to cure while the disease is still a local process. Œsophagoscopy, in the hands of the skilled endoscopist, is an infallible means of making an early diagnosis.

Chevalier Jackson's statistics show the preponderance of cancer at sites, where physiological narrowings normally occur, the post-cricoidal region; the crossing of the left bronchus; and the hiatal level.

That age is an undoubted etiological factor is shown by the fact that, with the exception of two cases of carcinoma, one at 19 and the other at 26 years of age, all the rest were over 30 years. The sixth decade of life is shown to be the most susceptible, for 75 per cent. of the patients were between 50 and 60 years of age. The youngest case of sarcoma was in a boy, aged 6 years.

The early symptoms are so trifling and vague that the patient frequently fails to notice them. Pain from a lesion in the thoracic œsophagus may be referred to the back, the epigastrium, the neck, the shoulder, or even to some more remote location. Cough is sometimes an early symptom.

As to the etiology, the author says it must be conceded that irritation, due either to the passage and stagnation of foods, or to the congestion and chronic œsophagitis due to regurgitation of the acid contents of the stomach, may be a factor in the localisation, if not in the actual commencement of cancer.

In the author's series of 671 cases, 316 were adeno-carcinomata at the lower end of the œsophagus, and 337 squamous-celled and atypical epitheliomata in other localities. Ninety per cent. of all the cases fell into these two classes. Fourteen cases were mixed lesions of cancer and syphilis. Males were in proportion of 9 to 1 female. The statistics of Logan Turner and Fraser showed a preponderance of women, approximately 2 to 1.

Jackson condemns the bougie as useless, in the early stage, for diagnostic purposes, and dangerous when the disease is advanced.

Review of Book

Roentgen rays and œsophagoscopy are the only two means by which malignant disease of the œsophagus can be diagnosed with certainty. Cancer of the œsophagus is the most benign of all carcinomata of the gastro-intestinal tract; it is a disease of comparatively slow progress, and remains localised for a long time, and has little tendency to metastases in other parts of the body, or in the lymphatic glands, as shown by cases which have survived five and six years.

Jackson is of the opinion that if cancer at the lower end of the œsophagus was discovered in the early stage, excision of the mass through an abdominal incision would offer good chances of cure, and that it is reasonable to expect a good percentage of cures if the patient could be operated upon in the early stage.

For inoperable cases Jackson advises an early gastrostomy, since this allows the growth to be placed at rest. Late gastrostomy means a high mortality since the patients are bad surgical subjects. He also advises a well-balanced diet by tube, plenty of water by the mouth, and deep Roentgen-ray treatment. Radium he considers useful in some cases, but overdosing must be avoided.

A number of water-colour endoscopic views of carcinoma and sarcoma of the œsophagus are reproduced, and a bibliography includes recent work in transthoracic surgery of cancer of the œsophagus.

IRWIN MOORE.

REVIEW OF BOOK

Les Tumeurs du Cerveau, par VIGGO CHRISTIANSEN, avec une Préface par Professor PIERRE MARIE. Deuxième Edition. Masson et Cie, Paris, 1925, pp. 398, Fr. 45.

In this published record of a series of twelve lecture-demonstrations, Professor Christiansen deals in an admirably lucid and comprehensive manner with the diagnosis, differential diagnosis, and treatment of intracranial tumours. Each lecture is illustrated by actual cases, in each of which the clinical course and symptomatology are traced from the appearance of symptoms to the final verification by operation, necropsy, or both. As is to be expected in a purely clinical treatment of the subject, the lectures are arranged on a basis of localisation. Thus, three chapters are devoted to tumours of the motor region of the cerebral hemispheres, two to acusticus tumours, and one each to occipital tumours, tumours of the base of the brain, tumours of the floor of the skull, tumours of the cerebellum and pons, tumours of the region of the chiasma; finally there are chapters devoted to cases of uncertain diagnosis and to surgical treatment.