

Abstracts

CASE III.—Boy, aged 12, with chronic suppurative otitis media.

Right ear: cause of chronicity tympanic sepsis. Readily and quickly cured by zinc ionization.

Left ear: cause of chronicity cholesteatoma in aditus. *Difficult* to cure. Outer attic wall has been in part destroyed by electrolysis. The sepsis in the ear has been treated by zinc ionization. There now is scarcely any discharge.

ABSTRACTS

EAR.

Tenderness in Acute Mastoid Disease. MACLEOD YEARSLEY, F.R.C.S.
(*Practitioner*, April 1924.)

The author complains that the text-books give so many indications for operations on the mastoid, that the most important symptom of all in acute cases, viz., mastoid tenderness, does not stand out predominantly as it should. "As a matter of fact, all these indications are as nothing in the face of tenderness, and to wait for any of them is to temporise, and to temporise is, in nine cases out of ten, to court disaster." The method of eliciting the tenderness is important—the patient should not be asked if it hurts: his attention should be diverted by conversation while pressure is applied, and the face should be watched for involuntary twitching of the eyelid.

A selected number of illustrative cases are given.

T. RITCHIE RODGER.

Scarlet Fever Otitis. E. H. R. HARRIES, and F. B. GILHESPY.
(*Lancet*, 1924, Vol. i., p. 843.)

The writers deal ably with the percentage and age incidence, importance, and treatment of this condition. An interesting point brought out is that at Birmingham City Hospital a number of cases of scarlet fever had chronic otorrhoea, on admission. The age period 0 to 5 years is responsible for the greatest case mortality and also for the greatest percentage incidence of otitis. The young children die from an overwhelming infection of the nasopharynx. Prevention of otitis is insisted upon, and the means suggested are, (1) removal of the initial focus of infection, e.g., adenoids and tonsils, and (2) release of pent-up secretions of the middle ear, i.e., incision of the drumhead. The authors point out in conclusion that (1) the onset in about half the cases is painless; (2) a small rise of temperature should always suggest an examination of the ears, and

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it is in these cases that timely paracentesis should be of value; (3) symptomless discharge may be the first indication; (4) mastoid complications are rare under five years of age. They are strongly of opinion that scarlet fever does not, as a rule, cause a rapid destruction of the membrane in the early stages of the disease if properly treated.

MACLEOD YEARSLEY.

The Pathology of Otosclerosis. By Professor Dr OTTO MAYER. (*Wiener Klinische Wochenschrift*, 7th February 1924, p. 131.)

The author has made careful examination of a large number of cases of otosclerosis and has been able to examine the temporal bones after death. He classifies the disease as of a sclerotic and of a myeloid type. The latter type he subdivides into fibrous, cystic, and vascular types.

He has found in the labyrinth a condition of hyperostosis so that the round and the oval windows are completely closed, and he has found exostoses in the perilymphatic cistern of the cochlea and on the scala tympani particularly in the second turn. Other malformations of the spiral lamina of the cochlea have been found in otosclerosis and others in a case of deaf-mutism of a congenital type. In further cases of otosclerosis and deaf-mutism there have been seen more generalised types of hyperplasia and the whole petrous bone has been found to be hyperplastic. The author considers that these malformations are of a congenital nature, arising in the primitive capsule of the labyrinth usually in the neighbourhood of the round and oval windows, and to a varying extent in other parts of the labyrinth. These early changes are the foci out of which develop the hyperplasias and exostoses of later life. The author compares these phenomena with the conditions arising in the other bones of the skeleton where exostoses and hyperostoses are not uncommon, often have a congenital incidence and, like otosclerosis, have a very definite familial history and are transmittable by heredity. The author claims that the formal development of otosclerosis is clearly one of congenital maldevelopment, but he confesses that the causal factor is still a mystery. Theories of blood infection have not been substantiated, and work on the effect of the ductless glands in this respect has not borne fruit. There is no apparent connection with osteomalacia and rickets, but the author does consider that there is a definite similarity and correspondence, if not a connection, between otosclerosis and the osteitis deformans of Paget. Similar changes to those described are found in the labyrinth in cases of Paget's disease even when the whole labyrinth is not affected. The lesions of typical otosclerosis are much more focal than the diffuse changes found in osteitis deformans.

F. C. ORMEROD.

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Röntgen-diagnosis in Ear Disease. J. FISCHER and M. SCALITZER, Vienna. (*Zeitschrift für Hals-, Nasen-, und Ohrenheilkunde*, Vol. vi., Part II., p. 421.)

As the result of experimental skiagrams on the dry skull and on the human subject, the authors conclude that there are three typical positions for exposure, including two old ones and one new. Of the old, one is Schuller's, in which, with the patient lying on his side, the rays are directed on to the parietal tuberosity of the side furthest from the plate through to the ear of the side next the plate. The other is Lilienfeld's axial petrous bone position, in which both petrosa with the mastoid processes come into view. The new position serves especially for the demonstration of the petrous bone. The patient lies on his side with the skull parallel to the plate. The rays are directed from a point three finger-breadths above and behind (kephal- und dorsalwärts) the tip of the mastoid, on the side furthest from the plate, to the middle point of a line running between the external auditory meatus and the outer wall of the orbit of the side next the plate.

JAMES DUNDAS-GRANT.

The Function of the Sacculus Endolymphaticus. Dr GEORGES PORTMANN. (*Revue de Laryngologie*, 15th October 1923.)

The writer reviews the anatomical features of the sacculus endolymphaticus, and points out, what must have occurred to others, that it seems to be designed to act "as a veritable physiological tambour," to receive and transmit to the endolymph-containing cavities of the internal ear all the modifications of intracranial pressure. He tried the effect of cauterising the sacculus in certain cartilaginous fishes, and found that disorientation occurred during swimming. Perhaps too much stress should not be laid on these experimental findings, as the enormous amount of physiological research which has been devoted to the labyrinth of fishes emphasises the need for caution in drawing conclusions from experimental results. Nevertheless the possibility of the sacculus serving some such purpose as the writer suggests, viz., the equalisation of intracranial and intralabyrinthine pressure, is deserving of consideration.

G. WILKINSON.

The Labyrinth and the Erect Position. LOUIS GIRARD. (*Revue de Laryngologie*, 15th June 1923.)

The writer sees in the fact that the external semicircular canal in man is inclined backwards at an angle of 30° to the horizontal, an indication that the human labyrinth has not yet adapted itself to the assumption of the completely erect position of the head. The position of the external canal corresponds to the horizontal line in primitive

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(Mousterian) man and in the gorilla. No mention is made of the corresponding deviation from the vertical of the plane of the macula of the utricle, which one would suppose would be at least equally significant.

G. WILKINSON.

On the Inheritance of Constitutional Deaf-Mutism. HERMANN ORTH.
(*Archiv. für Ohren-, Nasen-, und Kehlkopfheilkunde*, Bd. iii.,
Heft. 2, December 1923.)

Orth laments the lack of adequate statistics of deaf-mutism, and commends the methods employed by Rüdin in his study of dementia præcox. He shows how conflicting data concerning the influence of consanguinity may be reconciled on Mendelian principles, recapitulated with the aid of a diagram. Hessian records from 1905 to 1922, show a proportion of 22.42 per cent. of deaf-mutes among the children of heterozygote parents: this is regarded as compatible with a theory of monomeric recessivity. Other interesting information on the subject includes a family tree which illustrates the inheritance of deaf-mutism in the progeny of a generation afflicted with a form of deafness arising at the age of forty.

WM. OLIVER LODGE.

LARYNX.

The X-ray Treatment of Laryngeal Tuberculosis. KARL BECK.
(*Münch. Med. Wochenschrift*, No. 49, Jahr. 70.)

Beck is of opinion that in radiation we possess a valuable ally in the treatment of laryngeal tuberculosis. As a general rule the treatment should be employed in conjunction with the older and better-known forms of local therapy. Though he exposed some hundreds of cases to radiation, he does not care to formulate any precise indications as to the most suitable cases for such treatment. He has seen the most hopeless types of cases, both pulmonary and laryngeal, either improve or deteriorate under its influence, and this even in a small series of thirteen cases in which radiation was employed to the exclusion of all other treatment.

Beck employs irritative doses of small intensity, feeling carefully for the optimal dose which will induce the required reaction. The latter may the more readily be brought about if an injection of the preparation known as krysolgan has been made three or four days in advance.

Owing to the protracted effect of radiation in some cases it is inadvisable to increase the dosage precipitously. Usually five to six radiations are given at intervals of four to six weeks, in rare cases some further exposures were made after an interval of from four to six months.

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In practice Beck radiates from two, rarely from three, fields. He employs a 3 mm. aluminium filter, and he gives $\frac{2}{3}$ H.E.D. ($\frac{1}{3}$ in each field) in from one to two sittings. He calculates that only 40 per cent. of the H.E.D. is effective at the depth of 3 cm. which corresponds with the posterior wall of the larynx. It is therefore sometimes necessary to increase the strength of the dose so that this region may also receive from 50 to 60 per cent. of the H.E.D.

These doses are not exceeded, because it is assumed that a larynx which fails to react to the above dosage will also fail to do so with a larger one, which latter entails the risk of seriously injuring the skin or the laryngeal framework.

JAMES B. HORGAN.

MISCELLANEOUS.

Surgery of the Thyroid and its Mortality. CHARLES H. MAYO, M.D., and JOHN DE J. PEMBERTON, M.D. (*Annals of Surgery*, August 1923.)

The operative risk in goitre without hyperthyroidism cannot be compared with that of goitre with hyperthyroidism. In the former the patient's general condition is unaffected and the dangers are operative and post-operative accidents; in the latter, the danger lies in the disease itself.

The reduced mortality (1 per cent.) in cases of exophthalmic goitre is attributable to three causes: (a) patients come earlier for operation before development of visceral degenerative changes; (b) a clearer recognition of the dangers of injury to the recurrent laryngeal nerve—post-operative obstructive dyspnoea and post-operative pulmonary infections; (c) the combined medical and surgical management of the cases. The combined management of exophthalmic cases has reduced post-operative acute hyperthyroidism to a minimum and is warranted from the economic standpoint, as it has reduced the necessity for ligations. Medical measures employed are rest, adequate food and fluid intake, digitalis as indicated, oral administration of iodine, (Lugol's solution) repeated basal metabolic estimations every three to four days. Preliminary measures are ineffectual in adenomatous goitre with hyperthyroidism, because the onset of the hyperthyroidism is insidious and the stage of visceral degeneration is reached before the patient realises a change in his condition. In these cases the operative risk is relatively high.

In "Factors of Safety in Thyroid Surgery," by Willard Bartlett, M.D., *Annals of Surgery*, June 1923, the importance of the co-operation of the Internist is also emphasised.

Trained specially for this work he will be guided in his choice of a subject for operation by five major fields of study: (1) myocardium; (2) kidney function; (3) metabolic rate (relative); (4) patient's weight

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(relative); (5) patient's self-control; the last referring mainly to the subject of local anæsthesia and the patient's behaviour after operation. Myocardium plays the leading rôle in the selection of a toxic surgical patient.

MUSGRAVE WOODMAN.

Thyroid Tumour of the Tongue. MAX KRASSNIG. (*Zeitschrift für Laryngologie, etc.*, December 1923.)

The symptoms which first indicated the condition were *repeated severe hæmorrhages from the mouth*. This occurred in a cretin girl, aged 18, with the bodily development of a child of 8. A tumour, the size of a small apple, was found at the back of the tongue in the midline, with a crateriform ulceration on the summit which gave rise to bleeding. No sign of a thyroid gland was found in the usual situation, and the diagnosis was made on clinical evidence alone, afterwards fully confirmed by microscopy. Operation was undertaken by lateral pharyngotomy and splitting of the mandible after preliminary tracheotomy. Two pieces of the abnormally situated thyroid tumour were implanted into the abdominal wall and the after-development of the child was fairly satisfactory.

J. KEEN.

Idiosyncrasy to Adrenalin. H. E. SYMES-THOMPSON. (*Lancet*, 1924, Vol. ii., p. 743.)

After describing a case the author concludes that some people show toxic effects after a small dose of adrenalin, and he suggests that dentists should not use solutions of a greater strength than 1 in 100,000, and that surgeons should test patients with a small preliminary injection and, if idiosyncrasy is present, use a general anæsthetic. He states that synthetic adrenalin is preferable, that adrenalin is contra-indicated in Graves's disease. (I have used "Epinin," a synthetic adrenalin, in many hundred cases, including two of Graves's disease, and have never seen the least toxic effect.—M. Y.) Goetsch's test for hyperthyroidism should only be employed when the diagnosis cannot be established by other means.

MACLEOD YEARSLEY.

Asthma due to Cat and Dog Hair (A Personal Experience). G. T. BROWN, M.D. (*Journ. Amer. Med. Assoc.*, 27th January 1923.)

The author suffered since childhood from periodical attacks of dyspnœa. Tonsils and adenoids were removed and the usual medical treatment was given. These measures only gave temporary relief. Immediate relief followed a visit to Atlantic City, but always on his return home he again had his attacks. In 1919, he was tested for sensitisation with some twenty-five food proteins but all gave negative

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results. Subsequently testing with dog and cat hair gave positive reactions.

By getting rid of his dog and treating himself with dog-hair protein he has become entirely free from asthma for twenty-five years. His freedom from the attacks at Atlantic City was due to getting away from immediate association with dogs and cats.

PERRY GOLDSMITH.

Specific Serum Treatment of Epidemic (Lethargic) Encephalitis: Further Results. EDWARD C. ROSENOW, M.D., Rochester, Minn. (*Journ. Amer. Med. Assoc.*, Vol. lxxx., No. 22, 2nd June 1923.)

The treatment of encephalitis by intramuscular, intravenous, and intraspinal injection is discussed, making use of horse serum from animals immunised by repeated injections of the streptococcus which has been isolated from infected tonsils, teeth, nasopharynx, and sinuses of patients suffering from this disease. The results obtained are encouraging. The author states that "good effects have been noted in different types of the disease, in widely separated communities." He recommends a thorough search for a focus of infection in sinuses, teeth, and tonsils, and active immunisation with a vaccine prepared from the streptococcus proved guilty by animal inoculation.

PERRY GOLDSMITH.

Infections of the Upper Respiratory Tract. H. F. HELMHOTZ, M.D., and FRANCES MILLIKEN, B.A., Rochester, Minn. (*Journ. Amer. Med. Assoc.*, Vol. lxxxi., No. 14, 6th October 1923.)

The writer points out the well-known clinical fact that pyelitis in children is frequently associated with infections of the ear, throat, and teeth. Experimentally one is able to produce pyelitis in rabbits by injecting the organisms (staphylococcus and streptococcus) from the throat or ear. The organism found in the cases of pyelitis was, however, the colon bacillus.

Though no evidence was found tending to show that the primary infections act specifically, the author states that there is probably produced a general lowering of resistance of the urinary tract to the colon bacillus and that this gives the organism an opportunity to develop and produce inflammation. This explains the repeated clinical observation that chronic pyelitis which persists in the presence of chronic tonsillitis clears up after tonsillectomy. PERRY GOLDSMITH.

Ear, Nose, and Throat Operations in General Practice. Sir JAMES DUNDAS-GRANT, K.B.E., M.A., M.D., F.R.C.S. (*Practitioner*, August 1923.)

Foreign bodies in the nose and ear, the removal of polypi and turbinates, and of tonsils and adenoids are discussed. Middle

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turbineotomy is strongly advised in the early stage of frontal sinusitis, and if the symptoms persist, the author says, "the practitioner may safely make an opening for drainage of the sinus at the upper and lower angle of the margin of the orbit."

For antral suppuration, Lichtwitz's exploratory puncture, alveolar puncture, and opening the antrum in the canine fossa are each described in detail.

For hæmatoma of the septum early incision on one side is advised, with packing on both sides. T. RITCHIE RODGER.

Organotherapy in Diseases of the Ear, Nose, and Throat. W. J. LEIGHTON, M.D., B.Ch. (*Brit. Med. Journ.*, 24th November 1923.)

The author refers to endocrinology as the subject most prominent in medicine at the present time, and suggests that our specialty may be too much absorbed in the surgical side of its work, and apt to miss the benefits obtainable from the application of this line of treatment. Thyroid enlargement, he says, is often due to a focus of infection as, for instance, in the antrum of Highmore—the enlargement being due to the increased demand for the internal secretion to help in counteracting the sepsis. He recommends the use of thyroid gland in such cases, from the time they are first seen. Pituitary enlargement gives rise to headache behind the eyes, coming on especially in the morning, and often associated with ocular symptoms. The symptoms are relieved by administering the gland extract, to save the patient the necessity of increasing her own gland secretion. He advises examination of the urine for sugar in all cases of labyrinthine deafness, and refers to the sphygmometer as one of the most invaluable instruments in his armamentarium.

For asthenical and neurasthenical affections he advocates the use of adrenal gland. T. RITCHIE RODGER.

The Intravenous Injection of Antitoxin in Diphtheria. Drs DONALD MACINTYRE and D. W. MACKAY. (*The Lancet*, 1924, vol. i., p. 1262.)

The authors conclude from their experience of the past two years that the intravenous injection of antitoxin is of great value in severe cases of diphtheria. The toxic symptoms subside much more rapidly than after intramuscular or subcutaneous injection. The onset of paralysis also appears to be diminished. They were impressed by the number of cases in their series of 125 which escaped paralysis. On the other hand they do not advocate intravenous injection in mild or moderate cases where intramuscular injections have proved sufficient. It seems unnecessary to expose moderate cases to the discomfort and risk of the reaction. For this reason they have only

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used the intravenous method in several cases in which there is definite risk of the disease proving fatal. The injection itself is simple and comparatively painless and can be performed in young children.

MACLEOD YEARSLEY.

An Investigation of the Results of the Operation for Enlarged Tonsils and Adenoids. J. KEEN, F.R.C.S. (*The Medical Officer*, 23rd February, 1924.)

The object of Mr Keen's inquiry was to determine the *average* result following the operation in a long series of unselected cases, some 600 in number. In order to eliminate the personal equation and free the observations from the risk of personal bias, definite height and weight measurements were made before and after operation, and conclusions drawn therefrom. Data were also obtained by which to estimate the child's progress in school. Many other points were also considered. Briefly, there was noted, a reduction of 32 per cent. in the number of children whose attendances were irregular: of 34 per cent. in the number of those retarded in school work; of 45 per cent. of those appearing deaf to the teachers, and a reduction of 23 per cent. in the number of those classified as deaf.

The number of malnourished children was reduced in every age group, the percentage reduction in the boys being 44, and in the girls 41. As the home conditions remained the same throughout, the improvement would be legitimately ascribed to the operation. Where the malnutrition had not existed so long, as in the younger children (five to eight years), there the percentage reduction was higher, 50 per cent. in the boys and 53 per cent. in girls. Throughout the whole series in both sexes, the percentage increase upon the average weight and height was a constant occurrence.

A. LOGAN TURNER.

REVIEWS OF BOOKS

Travaux Scientifiques. Dr FERNAND LEMAÎTRE. Paris: Vigot Frères. 1923.

In this handsome volume Professor Lemaître has collected the results of his investigations which deal with many aspects of otolaryngology. Although a number of the papers have already appeared in the "Archives"—of which the author is editor—and elsewhere, they are well worthy of republication.

In the section dealing with otology there is a complete account