### ABSTRACTS

#### THE EAR.

#### The Problem of the Acute Ear. T. RITCHIE RODGER. (Journ. Canad. Med. Assoc., August 1926.)

Under this title the author includes such conditions arising in the ear as demand "either immediate operative interference or a concentrated and alert attentiveness till a decision can be arrived at."

The author advises early paracentesis in all except the very mildest degrees of middle-ear involvement. As a routine for paracentesis he has an adenoid curette prepared, and when the patient is anæsthetised he examines for adenoids and removes them if present. He is an advocate of early and thorough operative measures where the symptoms suggesting mastoid complication do not subside rapidly. Special importance is given to persistent mastoid tenderness. At operation the cells are not only broken open but all traces of them are curetted away down to the inner table. The wound is then rubbed with bismuthiodoform paste and closed completely; treatment of the middle ear is continued through the external canal.

In cases where the patient is not seen for some time after the acute onset but comes with persistent ear discharge, the author is in favour of early mastoid drainage unless rapid healing follows conservative treatment and attention to the nasopharynx.

E. HAMILTON WHITE.

#### Clinical Considerations on Acute Otitis Media in the Infant. A. SARGNON. (L'Oto-Rhino-Laryngologie Internationale, July 1925, p. 385.)

There is an essential difference between the acute otitis media of the infant and that of adolescence, the condition in the former being frequently latent. This latent otitis in infants is often observed if the ears of sick infants are systematically examined. The condition is usually bilateral, and the two most common causes are influenza and infectious fevers. It also frequently occurs as a part of a general pneumococcal infection. A sign of special importance is the continual carrying of the child's hand to the ear. Some rise of temperature is usual but is irregular in type; the tympanic membrane is dull, grey, swollen, and later bulging.

The diagnosis of latent cases is often difficult. The infant is seen by the general physician, who, after careful examination, finds no cause to explain the fever. The specialist finds the condition of the membrane

already described, incises it, bloody serum or pus comes out, and, in two or three days, the condition is improved. A day or two later, the temperature may rise again, with involvement of the other ear, or recurrences may take place. Complications are most frequent in cases which are undiagnosed and, therefore, untreated. Pleuro-pulmonary lesions should be regarded rather as coexisting factors of a common infection than as a complication of the ear disease. These cases of latent otitis show the same complications as in a classical otitis, except that the complications are frequently bilateral. Cases with involvement of the mastoid may show early inflammation of the periosteum. Other more severe cases are those in which no superficial signs develop, bone involvement being merely shown by a recrudescence of fever. These latter cases may suggest a lesion in the lung. X-rays may assist in the Osteomyelitic cases also occur, in which the spread in the diagnosis. bone is extremely rapid and early operation is urgent; thrombo-phlebitis, a grave complication, is frequent in these cases. Intracranial complications most commonly occur as an extradural abscess, while meningitis is not infrequent.

Prevention consists in nasal disinfection by silver salts, such as argyrol, and in the use of drops of medicated oil into the ear. Curative treatment comprises that of the ear and that of the general infection. Treatment of the ear consists in early and, if necessary, repeated paracentesis. A mixed vaccine may be helpful.

A. J. WRIGHT.

# The Treatment of Brain Abscess. J. E. J. KING. (Laryngoscope, vol. xxxiv., No. 12, p. 974.)

The difficulty in the majority of brain abscesses which have been successfuly operated upon, is the frequent re-formation of pus just as the patient is up and about again. A secondary abscess results and often terminates fatally.

The problem, then, is how to avoid the formation of these secondary abscesses—in other words, how can we drain brain abscesses so that the cavity cannot possibly form pockets where pus may collect. The main idea in operations is to provide adequate drainage and prevent a hernia cerebri, and with these objects in view, a case of temporo-sphenoidal lobe abscess was operated on, and drained by means of a rubber tube and four narrow gauze packing strips. Irrigation of the larger tube was done by placing a small rubber tube in the lumen. After several days a hernia cerebri developed, and the large tube was expelled as the abscess cavity had become shallow and could not retain the tube. The operative site was irrigated with Dakin's solution, and shortly the hernia receded and in two months had completely disappeared. The patient made a complete recovery.

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Why not, at the time of operation, provide a large trephine opening directly over the site of the abscess, unroof the abscess cavity by completely removing overlying brain substance, and allow of temporary herniation so that no drainage with tubes, etc., is necessary?

The following operation was devised. A crucial incision is made so that the apices of the flaps coincide with the site of the trephine opening. The flaps are raised and sutured back so that they do not adhere too early to the hernia which will form. A trephine opening is made and the dura mater incised for about a guarter of an inch and the brain explored with a blunt needle and cannula. As soon as the pus is obtained and the abscess localised, the needle is withdrawn and the trephine opening is enlarged in a direction to correspond with and overlie the abscess cavity. The dura mater is now divided in a stellate fashion, creating six pennant-shaped flaps which are reflected over the bony margin of the cranial defect and loosely sutured to the scalp flaps. Three small narrow strips of iodoform gauze are then insinuated beneath the margin of the circular defect in the dura mater so that the subdural and subarachnoid spaces are walled off. The abscess cavity is again located and a half-inch incision made through the brain tissue. A soft rubber catheter with a syringe attached to one end is inserted into the abscess cavity and most of the contents withdrawn. The cavity is then washed out repeatedly with Dakin's solution in the same manner. The incision in the cortex is now carried to the margin of the cavity and then around it in a circular manner, so that the entire roof of the cavity is completely removed. Practically no bleeding takes place. The cavity is thoroughly irrigated with Dakin's solution. The floor of the abscess cavity now becomes less concave, and flattens out and tends to rise somewhat into the operative field. No drainage tubes or other drainage materials are inserted. A fenestrated rubber dam is placed over the cavity, while small pieces of gauze soaked in Dakin's solution are applied. The three pieces of iodoform gauze are not removed or changed. The rubber dam is used to protect the surface of the hernia which will develop. Over the gauze, three perforated Dakin's tubes are placed, and over these again, more gauze and dressings, necessarily wet. This procedure is applicable to all cases in which the roof of the abscess can be removed.

The post-operative treatment is most important, and the cardinal points are: (1) Allowing of the temporary herniation of the brain, carrying with it the remaining portion of the abscess cavity. (2) Combating infection by the use of Dakin's solution. (3) Prevention of trauma to the hernia. (4) Prevention of over-distension of the ventricular system by lumbar puncture, if indicated. (5) Strapping of the wound with adhesive strips after the surface is covered with healthy granulations and when the hernia is receding. Dressings are done

daily and the Dakin solution is instilled every hour. Vaseline gauze protects the scalp. At the first dressing, everything is removed except the three strips of iodoform gauze.

In about six days the hernia will have formed and will overlap the iodoform strips which were left under the dura mater, and these are now carefully removed. Lightly packed, wet strips of gauze are inserted between the neck of the hernia and the skin flaps so as to prevent too early adhesions, but when the space between the base of the flaps and the neck of the hernia has been obliterated, the loose sutures which have held the apices of the flaps in an everted position are removed and the flaps allowed to adhere to the lateral surface of the The hernia is not cut away or compressed at this stage. If it hernia. becomes too large and there is a danger of the ventricle rupturing through the hernia, lumbar puncture is carried out, but this should not be done for the first few days. In three to four weeks the hernia becomes harder on the surface and begins to diminish in size. Epithelium grows over its surface, extending from the margin of the skin flaps. The surface of the hernia should now be covered with strips of perforated adhesive plaster, exerting slight pressure. The patient will be up and about the ward by this time. In two to three months the hernia has receded completely and the surface may even be slightly depressed.

A summary of four consecutive cases is given, all of which have recovered, and so far there has been no mortality.

ANDREW CAMPBELL.

#### Cerebellar Abscess with an Unusual Complication. I. H. JONES. (Laryngoscope, Vol. xxxv., No. 12, p. 893.)

A woman, aged 35, after suffering from chronic suppurative otitis media for fifteen years, developed nausea and vomiting with pain in the right temporal region. A radical mastoid operation was performed and cholesteatoma, etc., cleared out. Vomiting ceased but recurred violently in a week's time. Two months after the first operation, the temporo-sphenoidal lobe was explored with a negative result. Papillædema was not observed until five months after the radical operation, and at the same time the patient developed a sensory aphasia and word blindness. Thinking there might be a neoplasm, the left temporo-sphenoidal lobe was laid bare with a negative result.

The author was now called in, and he found a clean mastoid cavity, normal function in both cochleas, while cold caloric on both sides produced nystagmus but no past-pointing, falling, pallor, sweat or nausea. There was a tendency to conjugate deviation on stimulation of both horizontal canals. Later on, the left eye deviated inward on

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douching the right ear, and the right eye inward on douching the left ear. The sensory aphasia continued; had there been none, the diagnosis would have been a lesion of the cerebellum, upper portion of the brain stem, or a deep supratentorial lesion pressing on the brain stem.

Autopsy revealed a large abscess of the right cerebellar hemisphere. The lateral sinus was normal. Two small areas of necrosis extended into the subcortical white tissue of the left cerebral cortex, corresponding to points of exploratory puncture.

The aphasia may be explained by thrombosis in the arteries possibly caused by the needle punctures.

#### ANDREW CAMPBELL.

#### On "Silent" Abscess of the Cerebellum. G. FERRERI. (Archives Internationales de Laryngologie, September-October 1926.)

The fact that cerebellar abscesses are so frequently overlooked may be ascribed partly to their rarity, and therefore to the lack of opportunities for clinical observations; and partly to the fact that the cases require the knowledge of a skilled neurologist as well as that of an otologist.

This paper is an attempt to crystallise the oto-neurological diagnostic points and to sift the important from the unimportant in the diagnosis of abscess of the cerebellum.

In common with other intracranial morbid conditions, the first symptoms to be noted are those of increased intracranial pressure.

The headache in cerebellar abscess is more intense, always localised to the affected side and usually in the occipital region.

The author does not consider that any useful purpose is served by analysing the symptoms and signs of suppuration in any particular part of the cerebellum. In other words, he believes that a focal diagnosis is purely academic and may fog the question as to whether an abscess is present or not.

The various ataxic and dysmetric phenomena are described and the value to be given to each is noted.

Nystagmus tends to increase in cerebellar abscess as the disease increases, whereas in labyrinthitis it tends to diminish.

The vertigo is entirely dependent on the ocular phenomena, and should be enquired for early in the disease as it soon becomes compensated and may disappear entirely later on.

Four cases of cerebellar abscesses are described in detail. In none of the cases was the abscess definitely diagnosed during life, the pathological condition being discovered post-mortem.

MICHAEL VLASTO.

#### On a New Otoscopic Phenomenon in Epilepsy. Dr W. RUDAKOFF. (Archiv. für Ohren-, Nasen-, und Kehlkopfheilkunde, Band cxv., Heft 2.)

During or immediately after epileptic fits Rudakoff has observed hyperæmia of the tympanic membrane and punctate hæmorrhages, more especially in the postero-superior quadrant. He discusses the anatomical and pathological aspects of this observation, and its value in differential diagnosis. He describes the appearances in detail in nine cases. A short bibliography is appended.

WM. OLIVER LODGE.

#### THE NOSE AND PHARYNX.

#### A Reconsideration of the Sense of Smell. JAMES L. HALLIDAY. (Glasgow Medical Journal, March 1926.)

The author considers :---

The Significance of Smell.—Flavours are appreciated through the receptors of smell. Pungency, such as ammonia, is probably experienced through the endings of the trigeminal nerve in the nasal mucous membrane. The part of the cerebral cortex which is associated with olfaction is one of the most primitive parts of the brain and is known as the archipallium. In the lower vertebrates this makes up most of the cerebral hemisphere, but later in evolution the brain develops a new centre, the neopallium, which deals with tactile, visual and acoustic senses.

Smell, to a large extent, determines the movements of animals, especially the land-grubbing animals, but in the course of evolution certain animals forsook the ground and adopted a life among trees, and then the olfactory organs became limited and a higher development of vision, touch, and hearing was essential. The ancestors of man were among the animals who led an arboreal life. Compared to the dog the olfactory organs of man are relatively primitive.

Smell in Man.—In man, as in animals, smell is concerned with the feeding reflexes; the secretory by which saliva is secreted, and the muscular by smacking the lips and rolling the tongue. The sense of smell on the other hand may cause a sensation of disgust or nausea. Smell therefore comprises two opposite reactions, attraction and repulsion.

The environment of mankind is made agreeable or the reverse by the sense of smell. The delightful perfumes of certain flowers are agreeable, but the odours which are defined as nuisances by our sanitary laws are the reverse.

## The Nose and Pharynx

Man's apparatus for smell can be trained to different odours unknown to our forefathers, but smells are not arranged in the mind and a construction of a spectrum of odours is impossible.

Smell and Speech.—An individual can express in words his conscious reaction to odours in three ways only :—

- By simile or metaphor, he locates the particular odour to one known, for instance it "smells like linseed oil." He speaks of a "damp smell," because on a previous occasion a similar olfactory sensation was experienced in an environment which he had found to be damp. We use such adjectives for odours, sweet and sour, as we do for tastes.
- 2. The sense of smell is dominated by the other senses; we describe odour as delightful, horrible, sweet, stinking, etc.
- 3. The intensity of smell; for instance a vague odour recalls a series of lively visual images; a strong smell indicates close proximity, and a faint smell distance.

Smell and the Emotions.—Delightful perfumes are said to transport the individual "outside space and time." It is difficult in discussing odours to avoid emotional contamination.

Smells in Medicine.—The secretion from smooth skin gives a different odour to that of the hairy parts. At puberty the skin secretions change in character and in smell. Drugs such as iodine, sulphur, arsenic, and foods such as garlic, alcohol, etc., alter the skin smell.

The sense of smell, unlike hearing and vision, is not of much use in the physical examination of a patient. The nature of a smell cannot be described : one must smell a case of typhus, diphtheria or rheumatism and store up the olfactory image for future use. The examiner cannot impart experience of it to others. ANDREW WYLIE.

#### Case of Cerebro-Spinal Rhinorrhæa. Sir JAMES BARRETT. (Medical Journal of Australia, 7th August 1926, Vol. ii., p. 182.)

A man, aged 38, suffered from gradually increasing deafness and some impairment of vision. When he stooped clear fluid ran from the right nostril to the amount of two tablespoonfuls at a time. The fluid on examination proved to be cerebro-spinal fluid. The patient suffered headaches, head noises, and his gait was unsteady. A temporal decompression was performed, and the dura mater divided. There was evidence of intense pressure. The patient died. At post-mortem examination a tumour was found involving both auditory nerves.

A. J. BRADY.

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#### THE LARYNX.

#### Case of Cicatricial Subglottic Stenosis cured by Diathermy. SARGNON AND WERTHEIMER. (L'Oto-Rhino-Laryngologie Internationale, February 1926.)

A severe cicatricial stenosis existed in the subglottic region of a female, aged 24. The stricture had resulted from diphtheria at the age of  $3\frac{1}{2}$ , for which intubation and subsequently tracheotomy had been performed. Commencing with laryngostomy at the age of 5, many attempts at cure by dilatation had proved unsuccessful. Incisions on either side of the stricture with the diathermy knife finally proved successful and permitted closure of the fistula in the neck.

A. J. WRIGHT.

#### Röntgen-Ray Injury to the Larynx. W. TONNDORF, Göttingen. (Zeitschr. für Hals-, Nasen-, und Ohrenheilk., Vol. xiii., Part I., p. 22.)

Various observers have differentiated three stages:—The early reaction, the proper Röntgen action, and after a variable period perhaps years—the late reaction. In a case described, a young man had, five and a half years previously, four exposures, at intervals of a fortnight, for a lymphoma in the neck. Two days after the fourth exposure signs of burning appeared followed by ulceration of several weeks' duration. Vascular telangiectases developed on the side of the burning and were still present. The voice was weakened. The skin of the neck was tightened and the external muscles of the larynx appeared to have been converted into a firm scar-like mass. Laryngoscopy revealed distinctly dilated blood-vessels on the vocal cords and the ventricular bands. The dose reaching the vocal cords was obviously much less than that received by the external structures. Accurate measurement of the dose is of the greatest importance.

JAMES DUNDAS-GRANT.

#### MISCELLANEOUS.

#### Constitutional Asthma: A Clinical Study based on Personal Case Records. RUDOLF SCHMIDT. (Zentralblatt f. Hals-, Nasen-, und Ohrenheilkunde, 1926, vol. viii., p. 634.)

The recent work by the physicians at Prague is somewhat at variance with current views. The importance of the endocrine and neurovascular complex is recognised in the phrase "constitutional asthma"; the meaningless term "bronchial asthma" should be abandoned.

# Miscellaneous

The author regards the recent tendency to include constitutional asthma among the anaphylactic conditions as justifiable only in a few cases. Unlike the guinea-pig, man seldom shows anaphylactic reactions; proof of this is afforded by the rarity of the condition in spite of the "huge wave of protein injections that has swept over so many thousands of patients in recent years."

The cutaneous reactions are not always specific, and their importance should not be exaggerated.

Blood eosinophilia is more constant than the presence of eosinophile cells in the sputum. The presence of Charcot's crystals and Curschmann's spirals are even less characteristic; they are often absent in typical cases. In the early diagnosis stress is laid on modified respiratory movements, either inspiratory, sighing and yawning, or expiratory, sneezing attacks and pseudo-whooping-cough.

F. W. WATKYN-THOMAS.

#### A Severe Case of Allergic Asthma completely cured by Desensitisation. A. BESSEMANS. (Zentralblatt f. Hals-, Nasen-, und Ohrenheilkunde, 1926, Vol. viii., p. 634.)

An unmarried woman of 56, with no history of previous illness, developed asthma after an attack of bronchitis. Iodine, caffein, atropin, astemolysin, etc., gave no relief. There was no abnormality in the urine; Wassermann reaction negative; Besredka's reaction positive.

Some improvement followed injection of a polyvalent vaccine prepared from the sputum (50 per cent. staph. albus., 20 per cent. catarrhalis, and 10 per cent. each of mixed staph. aureus and citreus, streptococci and other growths) together with tuberculin. The commencing dose was 20 millions of the organisms and 1:100,000 Eventually the writer accidentally discovered that the tuberculin. attacks were always worse in bed than when the patient was lying on a sofa, although her position was the same. He prepared an extract of the sea-weed of which the mattress was made, and obtained a strong skin-reaction from it by scarification. One gramme of seaweed was soaked for several hours at 37 C. in salt solution, and the fluid filtered through a Chamberland candle. Injections of this extract, at dilutions of increasing strength, alternating with injections of tuberculin, effected a complete clinical cure in ten weeks. After five months the cutaneous reaction to the extract was negative, but there was a slight reaction to 0.25 c.cm. subcutaneously. Bessemans regards this as a case of allergic asthma caused and maintained by the dust of the sea-weed. F. W. WATKYN-THOMAS.