ABSTRACTS

EAR

An improved apparatus for detecting simulation of unilateral deafness. F. OESTERLE. (*Z. Laryng.*, 1936, xxvi., 353-5.)

Most tests for the unmasking of malingerers who pretend to be totally deaf on one side depend on the fact that a person always refers a given sound to the ear where the greater intensity of sound is used. Earphones are fitted over the head of the patient. The electrical circuit in the apparatus allows one to vary the intensity of the sound over a wide range. An assistant in another room speaks numbers into a microphone and the patient is asked to repeat them. At first the experimenter's voice is conducted only to the " good " ear with a low intensity and the patient repeats the numbers. Then rather suddenly the sound is switched into both earphones with a much increased intensity in the alleged deaf ear. If the patient is simulating deafness, he judges that his " deaf " ear is now being tested and he ceases to respond. On the other hand, if he is genuinely deaf on the affected side, he continues to repeat the numbers, as his " good " ear receives the same sound intensity as before.

J. A. KEEN.

A contribution to the treatment of Tinnitus. H. KOESTER. (*Z. Laryng.*, 1936, xxvi., 355-64.)

The author recommends a new drug for the treatment of head-noises, *Lubrokal*, a compound of potassium bromide and a barbiturate derivative. According to the severity of the symptoms 1-3 tablets are given daily for an initial period of 10 days. At a Policlinic in Breslau the new remedy was given a trial in 50 cases with relief of symptoms in 36 of them.

J. A. KEEN.

Exceptionally long latent period of an Otogenic Temporal Lobe Abscess, with a histological study of the Brain Abscess and of the Temporal Bone. B. KECHT. (*Arch. Ohr-, u.s.w. Heilk.*, 1936, cxl., 261-72.)

Girl, aged 11, with a history of an acute otitis media on the left side with profuse discharge lasting about a week and transient meningeal symptoms. All the symptoms subsided quickly, the ear healed and for 10 months the child appeared perfectly normal

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and attended school. Then came a sudden relapse with headache, vomiting and she was admitted to hospital with a diagnosis of meningitis. Death occurred after lumbar puncture before any operation had been done.

Post mortem a large abscess was found in the left temporal lobe, clearly of otogenic origin. The case is reported on account of the extremely long latent period (10 months) and the very remarkable absence of symptoms during that time in spite of the large size which the abscess eventually attained. Other authors have called attention to fairly long latent periods in otogenic cerebral infections. But the time which elasped between the initial otitis and the onset of intracranial symptoms has hardly ever exceeded 3 months in cases previously described (see References).

A histological study of the temporal bone showed many interesting features. There were small bony dehiscences in the attic region and on the facial canal. Further, several areas with preformed embryological strands of fibrous tissue between dura and epitympanic cells were revealed. The middle ear showed a thickened mucous membrane, but was otherwise healthy and the antrum and mastoid cells had apparently escaped infection. The author concludes that the infection reached the temporal lobe by these pre-existing pathways and not by a contact infection of diseased bone.

J. A. KEEN.

The Otological manifestations of Neurological Disease. D. G. CARRUTHERS. (*The Medical Journal of Australia*, 22nd year, 22, November 30th, 1935.)

Although examination of the function of the VIIIth nerve is an essential part of the investigation in cases of intracranial disease, the diagnostic and localizing value of the resulting data are sometimes difficult to interpret. The writer set out to determine to what extent the otologist might assist the neurologist in arriving at a diagnosis, and in the paper he relates the progress and result of his investigation.

Certain anatomical facts are of great importance. The cochlear fibres from each side not only form a double pathway on entering the brain but for each cochlea there is bilateral representation in the ascending tracts. Only a proportion of the fibres decussate before ascending to the higher centres. This arrangement provides a " safety factor " comparable to that of the other two protected senses of touch and sight. The exact pathway of the vestibular fibres is as yet undetermined. There is probably partial decussation of the fibres from all the canals as the postural movement in the direction of the vestibular flow is always bilateral. The falling, past-pointing and trunk and head rotation are slow and smooth

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movements such as could be caused only by crossed innervation and association of all stations.

Complete examination of the VIIIth nerve is useful not only in order to exclude an aural cause of the symptoms but to assist in distinguishing between degenerative and destructive lesions. Audiometric examination reveals no type of curve characteristic of an intracranial lesion, but in almost all brain tumours and in many other brain diseases there is diminution in perception of higher tones, although the patient may be unaware of any deafness. Deafness had rarely been recorded in cases in which an intracerebral tumour was found at *post mortem*. On the other hand, when the tumour was extra-cerebral, deafness on the side of the lesion had been noted, and it seems reasonable to suggest that in cases in which unilateral deafness is observed the lesion will be found to be extra-cerebral and accessible to surgical approach. Three cases are quoted in detail in support of the foregoing statements.

Dealing with examination of the vestibular function, the writer makes a plea for standardization of the caloric test. His method is to use water at 60° F., flowing at 100 c.cm. per minute, testing the patient in the horizontal and sitting positions, and recording the time of onset and the duration of nystagmus by means of a stop watch. Gross unilateral deafness and vestibular failure are suggestive of extra-cerebral, acoustic or cerebello-pontine angle tumour.

Little or no deafness, but ipsolateral vestibular failure, suggests an intra-cerebral lesion. The vestibular pathway is particularly vulnerable in degenerative states or in vascular disease ; loss of vestibular function in such cases is often bilateral.

Pure cerebellar disease without secondary pressure effects does not abolish any of the vestibular responses. Indeed a large cerebellar tumour may exist without loss of vestibular reactions, as for example a large cyst of one cerebellar lobe, as in a case seen by the writer.

The paper includes records of fifteen illustrative cases and there are ten figures and a short bibliography.

DOUGLAS GUTHRIE.

NOSE AND ACCESSORY SINUSES

Sinusitis, allergy, and the common cold. E. C. SEWALL. (*Archives of Otolaryngology*, xxii., 4, October, 1935.)

This writer asserts that chronic sinusitis is the chief endemic focus from which develops the infection called the common cold. The experience of Polar expeditions is significant. The Eskimos contract colds on meeting explorers who have themselves been

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free from cold for months. When such an epidemic is well established the explorers in turn develop the same colds. The explanation of this phenomenon is that some of the explorers had chronic sinusitis but are accustomed to their own and their fellows' bacterial flora. The Eskimos however fall an easy prey to the unwonted germs and virus. In their tissues the germs quickly acquire a new virulence which the explorers can then no longer resist. Thus they are attacked by their own rejuvenated germs.

DOUGLAS GUTHRIE.

Late changes in the Mucosa of the Frontal Sinuses and Nose in Dogs following Ionization. B. J. MCMAHON. (*Archives of Oto-laryngology*, xxii., 4, October, 1935.)

The writer deals with a series of experiments on dogs. In four dogs the nasal cavity of one side and in two dogs the frontal sinuses were ionized with zinc sulphate solution, 2-5 milliampères for 20 minutes. The dogs were then killed and the mucosa examined microscopically. There was found " a fibrosis of the sub-epithelial tissues ", progressively more apparent in animals killed at intervals of 18 hours to 7 weeks after ionization. Ionization of the frontal sinuses caused a similar fibrosis and in a dog killed 12 weeks later there were " marked hypoplastic changes in the bone ".

The changes in the nose consisted of primary destruction and later regeneration practically to normal, while in the frontal sinuses there was eventually a transition to a cuboidal type of cell over the areas of greatest destruction.

All of the changes would not take place in the human nose after ionization as the individual reaction is variable as to time, but there is reason to fear that within a short time a condition which the writer terms " a premature nasopause " may supervene.

Nine microphotographs illustrate the paper.

DOUGLAS GUTHRIE.

Epitheliomata of the Ethmo-maxillary region, their treatment by X-ray Therapy associated with Surgery. MAURICE JACOUD (Lyons). (*Les Annales d'Oto-Laryngologie*, November, 1935.)

The common ground between the ethmoid and maxillary antrum is a favourite site for malignant growths. And these growths have certain characteristics which allow us to identify them and group them together when discussing their treatment. *Histologically they are epitheliomata sometimes of the squamous* and sometimes of the columnar type. They originate in the mucous membrane but do not tend to invade the orbit and frontal sinus for a considerable time. They are not very radiosensitive nor are they radioinsensitive. The author's contention is that these

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tumours should be treated first by deep X-ray therapy and then by surgery. The deep ray therapy should be employed before and not after the surgical intervention. Its object is to inhibit the malignant process, to sterilize it and to shut off the lymphatic channels. It thus allows the operation to be performed in a healthy field and prevents the chance of dissemination considerably. There are certain contra-indications to röntgentherapy and these are discussed in the text. The clinical records of four cases are given in which the survival periods are 13, 7, 5 and 4 years. These patients are all alive. Many of his patients have died and it is particularly upon the lessons derived from these that he bases his conclusions. The surgical method of approach is an extensive paranasal incision. He then attempts to remove the growth in one piece, and his technique to enable him to do so is described in detail.

M. VLASTO.

LARYNX

Tuberculosis of the Larynx requiring Tracheotomy. M. C. MYERSON. (*Archives of Oto-laryngology*, xxiii., 1, January, 1936.)

An erroneous impression exists that when pulmonary tuberculosis is complicated by tuberculosis of the larynx the patient is doomed. This is true only when the pulmonary disease is acute and active. When the lung shows a tendency to heal, one may expect the larynx to do the same.

Another untrue contention is that the prognosis is bad in any patient who requires tracheotomy because of tuberculosis of the larynx. When death does occur after tracheotomy, the patient is usually suffering from acute tuberculosis of other organs besides the lungs and larynx. Tuberculosis of the larynx is not always accompanied by serious and extensive pulmonary involvement.

It is unfortunate that these incorrect statements influence the decision against tracheotomy when the operator might relieve suffering, prolong life and benefit the patient for a considerable time or even indefinitely. Fifty years ago Moritz Schmidt advised tracheotomy as a means of giving rest to the larynx. Although it is now known that this object is not attained, the larynx often shows marked improvement.

In the practice of the majority of laryngologists, laryngeal obstruction is the only indication for the operation, and the most frequent cause of the obstruction is fixation of the vocal cord in the mid line by tuberculous infiltration in or around the crico-arytenoid joint. Tuberculous invasion of the tracheotomy wound is not invariable, and was found in only three of a total of eleven tuberculous patients who underwent tracheotomy. When the

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obstruction can be removed by endolaryngeal instrumentation this should be preferred, but the writer prefers the indirect method as he has observed ulceration of the epiglottis shortly after direct laryngoscopy. It is stated by various authors that the larynx is involved in 8 to 40 per cent. of cases of pulmonary tuberculosis. Myerson has drawn his experience from 6,516 patients admitted to hospital during 1932-4 inclusive. Of these, 728, or 11 per cent., had laryngeal involvement and 11 of the cases required tracheotomy. One had bilateral abductor paralysis, one had carcinoma, and in the remaining nine the obstruction was of a tuberculous nature.

A detailed account of each case is given, illustrated by a drawing of the laryngoscopic appearance. The bibliography includes thirteen references. DOUGLAS GUTHRIE.

Tracheotomy for the relief of Laryngeal Obstruction in Children. H. E. KULLY. (*Archives of Oto-laryngology*, xxii., 3, September, 1935.)

No vital syndrome is more easily recognized or so frequently overlooked as acute laryngeal obstruction. Dyspnœa is a serious condition, especially in children, and it demands immediate relief regardless of the cause. Greater care should be taken in the diagnosis of the group of conditions known as "croup". The signs of laryngeal obstruction are indrawing of the intercostal spaces and epigastrium, and anxious expression (noted even in infants) and restlessness. Cyanosis is a dangerously late symptom and one should never wait for it.

The writer describes his experiences of 31 cases of laryngeal obstruction in children; 22 were cases of diphtheria. Tracheotomy was performed in 25 cases and intubation in two cases. Tracheotomy is usually to be preferred as it places the larynx at rest and the patient does not require the constant care and attendance necessary for intubation. Stenosis is more likely to follow intubation and a tracheal opening affords a satisfactory outlet for excretions and membrane.

Describing the technique of tracheotomy the writer recommends a short (2 to 3 cm.) incision just above the suprasternal notch. Weighted artery forceps applied to the cut edges of the fascia on either side are better than retractors and render assistance unnecessary. The trachea is incised through the third and fourth rings. High tracheotomy is a relic of days when the surgeon had an undue respect for the thyroid isthmus. The use of a general anæsthetic is most dangerous and no sedative should be administered. Removal of the tube is usually possible within a week.

The paper is illustrated by four photographs.

DOUGLAS GUTHRIE.

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Abstracts

TONSIL AND PHARYNX

X-ray treatment of the Tonsils. H. LOEBELL. (*Münchener medizinische wochenschrift*, 25, October, 1935.)

The question of X-ray treatment of tonsillar disease is considered at length, and the literature is extensively quoted. The author comes to the conclusion that it is in no way superior to older methods of treatment and that it possesses many disadvantages. Amongst the latter are mentioned dryness of the mucous membrane, trophic disturbances, and excessive hæmorrhage when enucleation has had to be performed subsequently, though this has not occurred in the author's cases.

In cases of simple hypertrophy X-ray can cause shrinkage of the tonsils but does not diminish the tendency to acute and chronic infections. In chronic tonsillitis X-ray treatment cannot be regarded as a substitute for enucleation; the patient's complaints persist and later on tonsillectomy is necessary.

The author investigated four cases in which enucleation of the tonsils had to be performed some months after X-ray treatment. The histological findings showed chronic tonsillitis. As these numbers were small, animal experiments were undertaken; the right tonsils of a series of dogs were radiated, while the left were untreated. Seven to eight months later the dogs were killed and the tonsils examined with the microscope. In no case could any important difference be seen between the treated and the untreated sides. The author concludes from clinical experience and histological findings that X-ray treatment of the tonsils is to be avoided.

R. R. WOODS.

Meningitis complicating Angina. F. JENNEMANN. (*Z. Laryng.*, 1936, xxvi., 372-87.)

A pure meningitis following on tonsillitis or peritonsillitis is an extremely rare complication. Cases of secondary meningitis after thrombosis of the jugular veins or of the cavernous sinuses or those following on extradural abscess are not included here. The author reports three cases, one with a fatal termination and two recoveries. In these cases only a few days elapsed between the beginning of the illness and the development of meningeal symptoms.

The pathways of the infection are discussed with full references to the literature. To account for lines of spread from the tonsil region there appear to be two explanations. One group of pathologists believe in the lymphatic spread, another group consider that the primary complication is a perivascular infiltration which reaches the larger veins with subsequent thrombosis. Once the infection has penetrated into the parapharyngeal space there are various ways

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in which it can reach the meninges ; in fact the inflammation may penetrate through any one of the openings at the base of the skull. Wessely, on the basis of some experiments with Indian ink, believes that the foramen ovale is the usual route. According to Vogel, the palatine veins form the main link between the tonsil region, the pterygo-palatine fossa and the pterygoid plexus; from the pterygoid plexus the venous connections with the interior of the skull are very numerous. The prognosis of this type of post-anginal meningitis appears to be relatively benign compared with other forms of meningitis.

J. A. KEEN.

The question of Tonsillotomy : a Clinical and Pathological Study. J. JESCHEK. (*Arch. Ohr-, u.s.w. Heilk.*, 1936, cxl., 197-206.)

A partial removal of the tonsils is still advocated in some Clinics, especially in cases of pure hyperplasia. The author collected a series of 20 cases in which this operation had been performed at varying intervals, on an average some eight years before he examined the patients. All of them required a complete enucleation on account of increasing symptoms, such as constantly recurring tonsillitis, quinsy, cervical adenitis, rheumatism.

There appears to be no doubt that tonsillotomy predisposes to retention of septic material in the crypts by means of the scarring which results. A clear proof of this contention is obtained by sectioning the tonsil stumps after enucleation. The strangling of the crypts by scar tissue is strikingly demonstrated in the histological preparations. The post-operative scarring may even lead to the formation of cysts in the substance of the tonsil stumps (see illustrations in text).

J. A. KEEN.

Retothelial Sarcoma. G. EIGLER and J. KOCH. (*Arch. Ohr-, u.s.w. Heilk.*, 1936, cxl., 278-308.)

A group of malignant tumours of the tonsils and tonsil region arise from the reticulo-endothelium of the tonsils and are known in German literature as " Retothelsarkome ". They are locally malignant with infiltration of the cervical glands and they represent approximately 25 per cent. of all malignant tonsil tumours. The histological differentiation between retothelial sarcoma and other forms is discussed, but the matter seems to be full of difficulties. In cases in which ulceration has occurred a wrong diagnosis of tuberculosis or Vincent's angina is often made. Clinically the most characteristic feature of the tumours is their ready response to X-rays.

During a period of four years, the authors collected eight cases. In four of them the tumour masses disappeared completely

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with treatment. In three there had been no recurrence for periods of 2-4 years, but in the fourth, a patient aged 81, only 5 months have elapsed since the treatment. The four cases which died were either operated on, which apparently is the wrong method of treatment, or the tumours were exposed to insufficient dosage of X-rays. Several of the eight cases were treated by combined X-ray and radium needles from the inside. The authors reject the combined method of treatment on account of the danger of necrosis of the hard palate (one case). The method of choice is fractional X-ray irradiation.

J. A. KEEN.

ŒSOPHAGUS AND ENDOSCOPY

Respiratory types of Cancer of the Œsophagus. DR. JOUSSEAUME. (*Les Annales d'Oto-laryngologie*, October, 1935.)

The particular clinical types studied in this paper are not those in which there is an involvement of the respiratory tract following on an easily diagnosable cancer of the œsophagus with progressive dysphagia. It is those rarer types where the initial symptoms are referable to the larynx, trachea, bronchi or pleura and where the diagnosis is sometimes only definitely revealed at the autopsy. The initial symptoms of œsophageal cancer may be either laryngo-tracheal, pulmonary or pleural. (A) Laryngo-tracheal. (1) Aphonia: this is due to a recurrent nerve palsy; (2) Dyspnœa: this is due either to an abductor paralysis in which there is slight hoarseness but no aphonia or to a neoplastic ingrowth into the lumen of the trachea causing a narrowing of the lumen. Occasionally, these two forms are combined. There follows a detailed description of a case illustrating the case in point. (B) Pulmonary: in this type, the œsophageal carcinoma simulates pulmonary tuberculosis. There is pyrexia, expectoration with hæmoptysis with physical signs in the chest. (C) Pleural: in these cases, a pleural effusion either sero-purulent or gaseous is present. The patient complains neither of dysphagia nor of regurgitation. Autopsy may reveal a peri-œsophageal phlegmon communicating with the pleural cavity.

M. VLASTO.

MISCELLANEOUS

Fracture of the Skull with prolapse of Brain Substance into the External Auditory Meatus. Recovery. N. A. NIKOLAEW. (*Acta Oto-laryngologica*, xxiii., 2.)

A boy, 8 years of age, fell on his head from a tree and was brought unconscious to hospital with brain substance filling his left external auditory meatus. The case presented several features

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of interest and the author has been unable to find any completely analogous record.

The line of fracture was apparently not, as is usual, through the tegmen tympani et antri with tearing of the tympanic membrane, but passed through the squamo-mastoid fissure so as to split the bony posterior wall of the meatus.

Another point of interest was the spontaneous nystagmus whose nature and gradual alteration in type during the process of recovery seemed to indicate that all of the semi-circular canals had been injured, but to different degrees.

A curious feature of the case was the complete absence of tears on the affected side, when the child cried, although a free flow followed tickling the nasal mucous membrane. The author discusses possible explanations of this phenomenon.

During the first few days after the accident symptoms of meningitis with rise of temperature were observed. As recovery took place an infective meningitis may almost certainly be excluded ; it must therefore be supposed that a traumatic meningitis may give rise to pyrexia.

In the treatment of the case all active measures were avoided, beyond painting the brain substance which filled the meatus with tincture of iodine ; this remained sterile and was not removed until all meningeal symptoms had disappeared and the general condition had greatly improved.

THOMAS GUTHRIE.

Some cases of Neurinoma. K. A. DRENNOWA. (*Acta Oto-laryngologica*, xxiii., 2.)

Verocay in the year 1910 was the first to define neurinoma as a characteristic type of new growth originating from the sheath of Schwann. As a derivative of the special supporting tissue of the nervous system, it has affinities with another tumour of nerve tissue, the glioma, although these two are sharply distinguished from one another by their histological structure and by the absence of intermediate forms. From such highly differentiated nerve tumours as the ganglioneuromata, the neurinoma is distinguished by the absence of ganglion cells and by the larger number of its nerve fibres, whence it used to be known as pseudo-neuroma.

When connective tissue elements are mingled with the cells of the sheath of Schwann, a mixed form results, the neurofibroma, which occurs usually in the skin. Of this nature was the first of the three cases here reported. A man, 25 years of age, had suffered since early childhood from a disfiguring overgrowth of the skin and subcutaneous tissue of the left half of the head and neck, including the pinna, with complete closure of the external auditory meatus. Microscopic examination showed, in addition to great

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connective tissue overgrowth, nodular tumours of the peripheral nerve endings, consisting of cells of the sheath of Schwann with their characteristic palisade-like arrangement. The case was classified as one of elephantiasis neuromatosa. Removal of the redundant tissue by repeated operation produced great cosmetic improvement.

The second case was that of a boy, 18 years of age, with nodular thickening of the skin of the right ala nasi, and isolated nodules of the size of hazel-nuts on the skin of the forehead and buttocks. He suffered besides from increasing weakness of the right arm muscles, progressive nerve deafness and loss of vision in the left eye. Examination of a specimen from the affected portion of the nasal skin showed the condition to be one of neurinoma, and the case as a whole appeared to be one of neurinoma multiplex (von Recklinghausen's disease).

In the third patient, a boy 19 years of age, a tumour of the right orbit had caused protrusion of the globe and progressive loss of vision. It was successfully removed and proved histologically to be a neurinoma xanthomatodes.

A review of the literature and the author's own observations lead him to the following conclusions: (1) Neurinoma occurs chiefly in early adult life. (2) It is essentially a benign growth, but in some situations may prove fatal from pressure on neighbouring structures. (3) As its most frequent localization is in connection with the cochlear portion of the eighth nerve, the possibility of its presence should be considered in all cases of spontaneous progressive nerve deafness.

THOMAS GUTHRIE.

Œdema of the Larynx occurring in Epidemic Parotitis. Professor REVERCHON (Lille). (*Annales d'Oto-Laryngologie*, October, 1935.)

The personal experience of treating four cases of œdema of the larynx as a complication of mumps must be very unusual. Of these four cases, one died before tracheotomy could be performed, one recovered after tracheotomy and two recovered without tracheotomy. Full clinical notes are given of these cases. The subjects were all adult males, indeed, the author has never read of a case in which the subject was a child. Moreover, in the four cases under discussion and in those reported in medical literature, œdema of the larynx associated with mumps has only occurred in those cases where the submaxillary glands were either alone affected or shared that affection with the parotids. The œdema of the larynx is practically confined to the posterior part of the region. Considerable space is given to a discussion as to how the œdema spreads from the submaxillary gland to the larynx. The

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conclusions at which the author arrives are based, firstly on the statements of other observers which are published in full, and also on the histological report of the submaxillary gland which was removed at autopsy from the case which succumbed. An interesting problem of differential diagnosis may arise in the case of a dyspnœic patient with a thick neck where one is uncertain whether one is dealing with a mechanical dyspnœa to which this group belongs or to a phlegmonous collection. In the latter case, dysphagia is a prominent symptom whereas in the former, it is not.

As the result of his experience, the author advises that a tracheotomy should be carried out in these cases as soon as dyspnœic manifestations are present. If a satisfactory laryngeal examination can be carried out, one should note the degree of abduction of the cords during inspiration. If this is satisfactory, then tracheotomy may be delayed.

M. VLASTO.

Disease of the Hip complicating Otogenic Sepsis. N. LESHIN. (*Archives of Otolaryngology*, xxii., 4, October, 1935.)

After a careful report of four cases personally observed the writer draws the following conclusions. Metastases, especially to the hip-joint are not uncommon in children during the course of otogenic sepsis. The sepsis may or may not be associated with thrombosis of the lateral sinus or jugular bulb.

Early diagnosis is not easy but is essential if serious sequelae are to be avoided. Early surgical drainage with traction and movement as soon as acute symptoms have subsided is the treatment of choice in suppuration in or around the hip-joint. Otologists should constantly be on the lookout for metastatic involvement of the joints in cases of otogenic sepsis.

The paper is illustrated by three skiagrams and an anatomical drawing.

DOUGLAS GUTHRIE.

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