(2) Female, aged 15. Chronic suppuration, bilateral; serous meningitis; left cerebellar abscess. Death.

(3) Male, aged 18. Acute suppuration right ear; temporo-sphenoidal abscess; meningitis. Death.

(4) Female, aged 32. Chronic suppuration left ear; temporo-sphenoidal abscess; inflammatory œdema of brain. Death.

ABSTRACTS

EAR.

Latent Mastoiditis. H. Luc. (*Presse Medicale*, 19th January 1921.)

Involvement of the mastoid antrum and cells may occur in the course of a middle-ear suppuration without producing any symptom or sign other than a discharge of pus so profuse and so resistant to treatment that it must clearly be derived from an area more extensive and more inaccessible than the walls of the middle ear alone. Two cases are quoted. In the first, a man of 30, operation was delayed, owing to the patient's reluctance, until it was made imperative seven weeks after the original paracentesis, by the sudden onset of rigors and high fever. The dura and lateral sinus were found healthy, but death ensued three days later from septicæmia. After this experience the author determined not to wait in such cases for more than four weeks, following the expiration of which full responsibility must be borne by the patient if he refuses operation.

The second case illustrates the importance of this principle. A male diabetic of 60 was operated on under local anæsthesia seven weeks after the onset of a profuse and persistent right-sided otorrhœa, the delay in operating being again due to the great reluctance of the patient to submit himself to an operation for an ailment which caused him no inconvenience or discomfort beyond that due to the abundant discharge of pus from his ear. The mastoid process was found to be completely disorganised. The lateral sinus was bathed in pus and covered with granulations. The discharge ceased on the second day after operation, and the wound had completely healed in twenty-six days. In each case the aditus was found to be exceptionally large.

F. J. Cleminson.

Case of Oriental Sore of Lobe of Ear. S. E. Dore. (*Proc. Roy. Soc. Med.*, Sect. of Dermatology, March 1921, p. 43.)

The patient, male, aged 20, developed a hard swelling in lobe of left ear, on board ship sailing from Aleppo. No history of insect bite or direct infection. When seen by exhibitor, there was an inflammatory

swelling of the lobe which was enlarged to twice its normal size, and was somewhat elastic as if it contained fluid, though none was present on puncture. Films obtained by puncturing showed large numbers of Leishman bodies. The skin over the tumour was red and slightly nodular in parts, but there was no ulceration. G. B. BRAND.

Otorrhœa in Tuberculous Subjects. ARMENGAUD. (Abstract from *Bulletin d'Oto Rhino Laryngologie*, Paris, March 1921.)

Attention is directed to the frequency of otorrhœa during the course of pulmonary tuberculosis. Tuberculous otitis presents difficulties in diagnosis, unless the lung condition is sufficiently advanced to be obvious. Statistics are quoted showing that in about 30 per cent. of autopsies on tuberculous subjects the patients had suffered from chronic otorrhœa, and of this 30 per cent. two-thirds, or 20 per cent., were demonstrably tuberculous. Four cases seen in military practice are described.

The author suggests the utility of always examining the lungs in the subjects of chronic and intractable otorrhœa. Examination of the aural discharge may reveal the tubercle bacillus.

E. WATSON WILLIAMS.

Three Cases of Secondary Otorrhœa. JORGEN MOLLER. *Acta Oto-Laryngologica*, Vol. ii., fasc. 3.

The idea of a secondary or, as Itard calls it, "symptomatic" otorrhœa is one which is frequently met with in the older literature, but in the great majority of cases it was based upon a wrong conception of the pathology of the diseases in question, and was generally the result of a confusion of cause and effect. Among the very few genuine cases of this condition to be met with in the records is one which the author described in 1906, in which a non-otogenous otorrhœa was due to tuberculous osteitis above the ear. He now relates three additional cases.

In two of them a parotid abscess, and in the third a large suppurating traumatic hæmatoma of the parietal and temporal regions underwent spontaneous evacuation through the auditory meatus.

THOMAS GUTHRIE.

Mastoidectomy (Perisinus Abscess, Exposure of Dura) followed by Toxic Insanity. Recovery. OTTO GLOGAU. (*The Laryngoscope*, 1920, Vol. xxx., p. 566.)

The author refers to the toxic origin of insanity in certain cases, *e.g.*, puerperal infection. The psycho-analyst, however, denies the importance of an underlying anatomic substratum for psychic processes.

He explains our actions by the struggle of suppressed wishes and fears. Only in specially susceptible subjects with pliable mental equilibrium will these toxic influences derange the normal psychic mechanism.

Case Report.—Male, aged 29 years, had severe pain in his right ear three months before his visit. After several days the ear discharged. The pain, however, grew worse. Four weeks before admission paracentesis was performed. The ear kept on discharging very freely, but pain grew worse, and the patient became very dizzy and weak. Examination showed the upper posterior canal wall sagging, redness and severe tenderness over the entire mastoid. An X-ray picture of both mastoids showed destruction of cells on the diseased side.

Operation.—Mastoid filled with pus and granulation tissue; dura of middle fossa exposed and found normal; an extensive perisinus abscess reached to the region of the bulb. Cavity was not closed. On the fifth day the patient appeared somewhat stuporous, pupils widely dilated. At night he became very talkative, and would not permit anybody to approach his bed. He claimed he saw a fly at the other end of the room which was the angel of death. He accused everyone of being a conspirator, and became very violent. Even after repeated hypodermic injections he had to be tied down. This condition continued for a week. He was restless and tore off the dressing. The relatives almost insisted upon an exploratory operation on the brain. Glogau, however, refused, claiming that he was dealing, not with a brain abscess, but with toxic insanity, which in due time would disappear. A neurologist reported left hemiparesis, mainly of the face. Tendon reflexes livelier on left side. Left adiadokokinesis. Left upper extremity showed ataxia and overpointing. There was thus a strong suspicion of temporo-sphenoidal abscess, but Glogau still refused to operate. Gradually the patient became more and more sensible, and was discharged about one month after admission.

Glogau thinks there had been a local œdema of the right temporo-sphenoidal lobe with general toxic manifestations in the course of septic disease. The hallucinations and delusions pointed to a psychic cause or rather susceptibility, founded on certain suppressed wishes and fears that occupied the patient's unconscious state previous to the operation. J. S. FRASER.

Rupture of the Tympanum from Shell Explosions. CHAVANNE. (*The Laryngoscope*, 1920, Vol. xxx., page 441.)

Chavanne reports on 543 cases, 74 cases involving both sides. Tympanic ruptures usually are more or less circular or linear. Order of frequency:—Below and in front, 258; below and behind, 45; in

front of the umbo, 62; above the umbo, 26; in front of the malleus handle, 23; behind, 39; in the postero-superior quadrant, 13; whole extent of lower half, 11; almost the entire tympanic membrane, 7; in the membrana flaccida, 4; whole anterior half, 1; posterior half, 8. Almost all the linear ruptures were vertical or slightly oblique. Mastoiditis is rare in these cases, 11 in 543. 35 out of 543 became chronic. J. S. FRASER.

Primary Thrombosis of the Superior Petrosal Sinus. F. MÜLLER. (*Zeitschr. f. Ohrenh.*, Bd. 79, H. 3 and 4, 1920.)

A boy aged 12 was taken ill four weeks previously with otitis media; swelling behind the right ear for two days.

Temperature 37° C., pulse 72; copious pus in right auditory meatus; drumhead reddened; auricle projecting; mastoid very tender; whisper heard at the ear. Operation, 6th Jan. 1916: Mastoid cells full of pus; extensive operation with opening of the antrum; lateral sinus appeared healthy. Same evening a rash similar to chicken-pox appeared all over the body. For several days the temperature was slightly above normal, and then subsided. On 11th Jan. temperature rose to 38·6° C; at midday he had a rigor and temperature 40°. Second operation: Jugular vein ligatured and divided; upper end bled and was ligatured. Lateral sinus was widely exposed, but wall appeared quite normal. The roof of the antrum was removed and an extradural abscess opened. The dura was covered with granulations; opened after painting with iodine, and incision made in temporal lobe. No abscess was found.

Temperature normal till 15th Jan., when it was slightly raised. On 17th Jan. rigor and temperature 39.7°. Immediate operation.

The jugular stump was opened again; the thrombus was removed till blood flowed, and the vein was again tied. The dura of the middle fossa was exposed more freely by removal of more bone. The junction of the superior petrosal sinus with the sigmoid sinus was exposed and pus found in the neighbourhood. The superior petrosal sinus was found to be full of breaking-down clot, which was removed. The subsequent recovery was uneventful.

The rash which appeared in this case was at first taken for chicken-pox, but was later labelled pemphigus septicus. The writer concludes as follows:—"A rash like chicken-pox in a surgical ear case must always awaken the suspicion of a septic or pyæmic infection or bacteræmia.

"One should, in extensive acute and chronic suppuration, regularly open the middle and posterior fossæ, even when the bone adjoining appears healthy." He recommends exposure of the junction of the two sinuses in all cases where rigors are not sufficiently accounted for by the findings. J. K. MILNE DICKIE.

Peroral Endoscopy

Septic Thrombosis of the Sigmoid Sinus without Pyæmic Fever.
G. PIOLTI. (*Arch. Ital. di Otol.*, Vol. xxxi., No. 5, 1920.)

A peasant, aged 42, came complaining of pain in the left ear and side of the head of three months' duration. The pain had come on suddenly after a cold, and had been getting gradually worse. Examination showed slight reddening of the left drumhead, without any bulging. There was no sagging of the posterior wall of the meatus, and there was no rise of temperature. Paracentesis gave no pus, and the wound closed in two days. The pain continued to be very severe, so the mastoid was opened. The cortex was hard and sclerosed, and under it were found two large extradural abscesses, one in the middle and one in the posterior fossa. The lateral sinus was covered with granulations. It was opened and found to contain greyish yellow friable clot. This was carefully removed and the cavity packed. The subsequent course was uneventful, and resulted in cure. J. K. MILNE DICKIE.

PERORAL ENDOSCOPY.

Pulmonary Suppuration: Its Direct Treatment through the Bronchoscope.
B. M. KULLY. (*American Journal of Surgery*, March 1921.)

In spite of the recent rapid development of thoracic surgery, the percentage of cases of pulmonary suppuration considered suitable for surgical interference is very small, while the post-operative mortality varies from 35 to 40 per cent. The cases now described were treated *viâ* the bronchoscope by Dr Yankauer, or under his supervision, at the Mount Sinai Hospital.

Pulmonary suppuration, except in very acute cases, is always accompanied by bronchiectasis and gangrene. Any number of bronchiectatic cavities may be present. Owing to the overlapping of the various lobes the bronchoscope is a more reliable means of localising these foci of suppuration than are the Röntgen rays. In an analysis of 82 cases, the right lung was by far the most frequently affected, especially its lower lobe. Treatment consisted in regular irrigation and aspiration of the suppurating cavities. The bronchoscope is introduced into the cavity or into the bronchus leading to it, and, by means of Yankauer's double current canula, irrigation and aspiration are simultaneously carried out, the process being repeated with each lobe involved; 4-8 oz. of fluid are used for each irrigation, either normal saline or weak iodine being used. In the case of the latter, irrigation is commenced with a $\frac{1}{1000}$ solution and gradually increased to $\frac{1}{400}$. Cases with much fœtid discharge are treated weekly, but as cough and expectoration diminish, the interval is increased to one or more months. Occasionally, as in ten of the cases dealt with, there is definite constriction or obstruction

of the draining bronchus. This may be due to inflammatory swelling of the mucous membrane, which can be overcome by the direct application of cocaine and adrenaline followed by argyrol. Obstruction may also be due to exuberant granulation tissue, which is treated with caustics after the application of cocaine, or to cicatrical contraction, which is overcome by means of bronchial dilators.

All the cases dealt with were in an advanced stage, and the author describes very encouraging results. Fœtor disappears, and there is a rapid diminution of cough and expectoration. Four of the patients were cured, one of these receiving over 100 irrigations. Nineteen cases were greatly improved, and were able to return to work. In three cases only was the improvement limited to loss of fœtor. Three patients died, not, however, as a result of the treatment. So far, 1054 injections have been carried out without a single untoward result. No discomfort accompanies the treatment; the patient is able to return home the same day and to start work next morning. Although some of the patients have been irrigated 150 times, there is no ill effect on the larynx and no hoarseness. GILBERT CHUBB.

Röntgenographic Studies of Bronchiectasis and Lung Abscess after direct Injection of Bismuth Mixtures through the Bronchoscope. H. L. LYNAH and W. H. STEWARD. (*Annals of Surgery*, March 1921.)

The first injections of bismuth mixtures into the bronchial tree were accidental, and occurred in cases of œsophageal carcinoma, either with a fistula of the œsophagus into the trachea or with laryngeal palsy. No ill effects followed the occurrence. In 1917, Dr Yankauer treated a case of bronchiectasis by direct applications of iodine solutions through the bronchoscope, with complete recovery.

The authors describe five cases of lung abscess mapped out röntgenographically after injections of aqueous and oily mixtures of bismuth carbonate directly into the diseased area of the lung. A 7 mm. bronchoscope was introduced and each branch bronchus examined in turn, sucked dry of pus and the patient instructed to cough. By this means the branch from which the pus was coming could be definitely located and injected. No ill effects followed the injection; but, on the contrary, a decided improvement, with disappearance of odour and diminution of discharge.

Immediately after the injection, and before the patient coughed, the opaque mixture could be seen flowing out of the abscess cavity into the bronchial tree. The flow was upwards and the lower branches remained free, an observation which the authors suggest points to the existence of some other mechanism in addition to cough and cilia for the expulsion of secretions from the bronchial

tree. The injections remained in the abscess cavity for from two weeks to two months. The material used consisted of 8 ccs. of bismuth carbonate in pure olive oil, in the proportions of one to two, sterilised by boiling and slowly injected.

For the purpose of locating the diseased area the röntgen examination should be made almost immediately after the removal of the bronchoscope, otherwise a fit of coughing will remove much of the bismuth from the involved lung. GILBERT CHUBB.

The Treatment of Severe Cicatricial Stenoses of the Œsophagus. J. GUISEZ. (*Presse Medicale*, 26th June 1920.)

This paper deals with œsophageal strictures of traumatic origin, and is based on an experience of 135 cases, in nearly all of which the trouble was caused by swallowing caustic solutions. Six cases followed impaction of a foreign body, 5 were the result of gunshot wounds during the War, 2 were caused by poison gas, and 2 by the swallowing of hot fluid. In 44 of the cases the patient could not swallow any liquid, not even his saliva, and had undergone the operation of gastrostomy. The greater number of the cases, and even as many as 36 of those just mentioned, were amenable to treatment by endoscopic methods. Endoscopy revealed a tiny aperture surrounded by cicatricial tissue, usually near the periphery of the field of vision and hidden by a fold of mucous membrane. While liquids may pass this orifice, complete obstruction is readily induced by solid food, spasm, or slight inflammation. The stricture may be entered by a filiform bougie, and it is useful to leave the bougie in position for ten or twelve hours. The filiform instrument acts as a guide for a larger bougie, and in this manner 95 per cent. of strictures may be satisfactorily treated.

When the filiform bougie cannot be passed, gastrostomy should be performed. By this means complete rest is secured for the œsophagus, and after a few days it may be possible to pass a bougie under direct vision. Retrograde œsophagoscopy and dilatation of the stricture through the gastrostomy wound has never succeeded in the author's hands, and he regards it as useless, an opinion shared by Chevalier Jackson. In only 2 cases out of the total 135 was the œsophagus completely closed by cicatricial tissue.

DOUGLAS GUTHRIE.

Diverticula of the Œsophagus. ARTHUR DEAL BEVAN, M.D., Chicago, Ill., U.S.A. (*Jour. Amer. Med. Assoc.*, vol. lxxvi. No. 5, 29th January 1921.)

The author writes of his experience during the past ten years, and points out the value of X-ray examination. Reference is made to

the frequent failures in operative procedures where the diverticulum was excised, but in which leakage and sepsis ensued.

Pulsion diverticula occur at the junction of the œsophagus and the pharynx in the median line posteriorly. At this point there is a triangular area where the oblique muscles of the pharynx and the transverse circular muscle of the gullet meet.

Probably there is a congenital absence of some of the muscle fibres in this region, permitting a protrusion of mucosa during deglutition. The neck of the pouch always remains comparatively small, while the pouch itself may reach a size sufficient to hold eight or twelve ounces, or even more. Traction diverticula may occur at any point in the œsophagus, especially within the thorax, and are caused, as a rule, by cicatricial contraction of some old inflammation drawing the wall of the gullet outward and making a funnel-shaped diverticulum. Such cases are not of interest to the clinician apart from the primary lesion responsible for their production.

Small pulsion diverticula may produce few or no symptoms; with a little irritation in swallowing and occasional regurgitation, but no great discomfort to the patient, they do not call for any treatment. Bevan points out, however, the ease with which these early cases may be cured. Larger sacs, however, may produce very great discomfort from decomposition of the contents and annoying regurgitation. In others the difficulty of swallowing becomes increased, and in extreme cases, where most of the food passes into the sac, starvation may have to be faced. The author has had cases where gastrostomy was necessary in order to feed the patient until he regained sufficient strength for further operative measures.

The method of operation depends upon the size of the sac. If it is small, it is invaginated with three purse-string sutures into the œsophagus where it can do no harm. Larger and longer sacs should not be so treated owing to the danger of their closing the opening of the larynx in vomiting.

With larger sacs two methods are available, viz: (1) Invagination of one half of the diverticulum into the other half with three purse-string sutures. The remainder of the sac is then obliterated by six or eight longitudinal sutures running parallel with its long axis: (2) crushing the main mass with heavy forceps, tying with a silk ligature and cutting off the distal portion with a cautery. The remainder of the sac is then treated by invagination as is advised for small diverticula.

The anatomy of the region and the various steps of the operation are illustrated by drawings which greatly simplify the description of the operative technique. PERRY GOLDSMITH.

Miscellaneous

MISCELLANEOUS.

Some Results of Light Treatment in Tuberculosis of the Mouth, Pharynx, Larynx, and Nose. V. MALMSTRÖM. (*Acta Oto-laryngologica*, Vol. ii., fasc. 3.)

The cases described were treated simultaneously by light baths and ordinary sanatorium methods. Both sunlight and a modification of the Quartz Mercury vapour lamp ("Hohensonne"), with an alternating current of 110 volts, were employed. The duration of the sun baths was one hour daily when weather conditions permitted, and of the artificial light baths forty-five to sixty minutes at a distance of 1 metre from the lamp. The whole of the naked body was exposed to the source of light and not merely the tuberculous focus. No local medical or surgical treatment was carried out.

The seven cases recorded suffered from tuberculous ulcers of the tongue, palate, pharynx, larynx, and nasal cavities. Some of them also had advanced pulmonary disease. The lesions in the mouth, nose, and throat in all the cases became healed notwithstanding the fact that in some of them the pulmonary disease actually progressed.

While recognising the impossibility of determining with certainty the parts played respectively by the light and the general hygienic and dietetic treatment, the author is nevertheless convinced that the former is a powerful therapeutic factor in tuberculosis.

THOMAS GUTHRIE.

Plastic Operations on the Face by Means of Fat Grafts. J. N. ROY. (*Laryngoscope*, February 1921.)

Roy describes this method of filling up cicatricial depressions following injury. After excising the cicatrix and freeing the surrounding skin, a piece of fat from the thigh or buttock is transplanted into the wound. Obviously the method is not applicable to bony defects, but is ideal for the soft parts. Four cases are described, and the paper is illustrated by a series of photographs. ANDREW CAMPBELL.

REVIEW OF BOOK

Collection of Lantern Slides Demonstrating the Surgical Anatomy of the Temporal Bone, with Photographs, Catalogue and Guide. ARTHUR H. CHEATLE, F.R.C.S. London: H. K. Lewis & Co., Ltd. 1921.

There are probably few students of otology who are unacquainted with Mr Arthur Cheatle's valuable investigations upon the anatomy of the temporal bone. There must be many, however, who have neither