ABSTRACTS

EAR.

Nystagmus following Inflation in Cases of Secretory Catarrh. ERICH RUTTIN. (*Monatsschrift für Ohrenheilkunde*, 1930, Vol. v.)

Referring to previous communications in which he has described the production of giddiness and nystagmus directed towards the affected side after inflation in such cases, the author now adds this present communication, with an account of seventeen cases, which, he suggests, offer an explanation of these phenomena.

In contrast to these he relates his unsuccessful attempt to induce similar results in cases of otosclerosis. He submits that the lesions usually found in a case of otosclerosis not only explain the failure to elicit such phenomena, but also serve to confirm his theory as to the production of the same in other cases. The conclusion at which he arrives is that such phenomena are referable to a functional condition of the membrane of the round window, influenced by the presence of an undue amount of overlying secretion and transmitting an unusual pressure effect to the perilymph and thus stimulating the utricle.

The following abstract of Case 5 in his series will serve to illustrate the author's investigation:—Woman, aged 20, who for one year complained of pain in the left ear, which was intermittent and associated with impairment of hearing. No giddiness, no tinnitus and no otorrhœa; general nervous condition.

5th January 1926.—Reported as out-patient, stating that two days previously the left ear had been inflated, causing severe giddiness. On this day the inflation was again repeated, with the same result; rotatory nystagmus to the right was observed and the giddiness was so extreme that she could scarcely stand.

By-pointing with arms outwards—typical falling reaction with all positions of the head. Nystagmus lasted 2 minutes 23 seconds.

On examining the left ear after inflation the membrane was seen to be markedly distended, especially in the posterior superior quadrant, with injection of the malleolar plexus.

Hearing: whisper range over 7 metres. Weber to the R. Rinné positive R. and L. Schwabach about normal R. and L. Now no spontaneous nystagmus or by-pointing. No fistula symptom.

Rotation with head erect resulted in a nearly symmetrical nystagmus, but on rotation to the right, with face down, the giddiness and body reaction was greater than on rotation to the left, whilst rotation to the right, with head on either the right or left shoulder, induced a corresponding upward and downward vertical nystagmus of 7 seconds' duration in each case.

Eleven days later inflation again induced nystagmus directed towards the same side.

On re-examination two months subsequently inflation produced a marked distension of the membrane, but with no giddiness, discomfort or nystagmus. However, some fifteen minutes later a severe giddy attack occurred with a nystagmus to the right lasting 20 seconds, and ten minutes later again a similar attack recurred, lasting 5 seconds.

Apparently the giddiness and the nystagmus were dependent on an inflation of sufficient force to induce distension of the membrane, whilst if such were restricted to merely a gentle inflation with the catheter, so that the membrane was not distended, no giddiness or nystagmus resulted.

The author considers that the results of these investigations are important in respect of the diagnosis of labyrinth disease, when, if such results are not borne in mind, an erroneous opinion may be formed. ALEX. R. TWEEDIE.

Spontaneous Fractures of the Labyrinth and their Significance in relation to Otosclerosis. Professor OTTO MAYER (Vienna). (*Zeitschrift für Hals-, Nasen- und Ohrenheilkunde*, Band xxvi., Heft 3, p. 261.)

Mayer draws attention to the occurrence of spontaneous fractures of the labyrinth in cases of fragilitas ossium which, as well as other fractures of the labyrinth, run at right angles to the long axis of the petrous bone. In otosclerosis the lines of demarcation are in the same direction. These lines run mostly in the areas in which the spongy change shows itself, such as the cochlea and the margins of the oval window. In these areas there are sources of small but continuous draggings, as by the basilar membrane in the former and the tensor tympani (acting on the stapes) in the latter. In addition to these causes of irritation it is necessary for the development of otosclerosis that there should be another factor—a constitutional disposition. In the similarity of the sites of fracture and those of otosclerosis Mayer finds strong support for the view that the osteoporotic bone is analogous to or identical with the callus that forms around fractures.
JAMES DUNDAS-GRANT.

Efforts to Cure by Surgery a Mastoid Cavity which refused to Heal. P. AUBRIOT. (*Archives Internationales de Laryngologie*, June 1930.)

A healthy woman of 32 had been operated upon at the age of 8 for a scarlet fever mastoid. When she came under the author's observation, the cavity communicated with the outside by a fistula from which came a fœtid discharge and through which a wide area of bare

bone could be felt. After a thorough curettage of the cavity and the complete removal of all possibly diseased foci, a smooth cavity was obtained which it was thought would epithelialise. It did nothing of the sort. After a reasonable time the cavity took on the same unhealthy appearance that it had before. Many different forms of dressings and internal medication had no effect. During the whole of this period the tympanic membrane and the hearing remained normal. The author decided that in view of the patient's intense desire to eliminate the mastoid wound, he would close it by a plastic operation, and allow the discharge to drain into the meatus. This operation was neither designed nor expected to heal the cavity. After removal of the outer half of the posterior meatal wall the mastoid cavity was covered by a plastic operation.

To the author's great surprise the discharge became less, and the cavity so far diminished in extent that at the time of writing the author states that a complete cure is being obtained.

There is something mysterious, according to the author, in the way in which some mastoid cavities refuse to heal, and why healing should have taken place in this case. The suggestion is made that it is the free exposure to the outside air which prevents the process of repair.

M. VLASTO.

The Bacteriology of Otitis Media in Infants. GUIDO RIZZI. (*Archivio Italiano di Otologia, etc.*, June 1930.)

In 192 consecutive post-mortem examinations performed on children dying from various causes in the first and second years of life fifty cases of otitis media were found. In thirty-three of these the condition was bilateral, in seventeen unilateral.

In every case a bacteriological examination of the purulent fluid was made. In thirty-seven cases there was a mixed infection, in eight there was a single organism (in five this was the pneumococcus), in the remaining five the fluid was sterile.

The diseases responsible for the deaths of the infants were as follows:—

Respiratory diseases	30
Disorders of metabolism and the blood . . .	7
Meningitis (excluding tuberculous)	6
Tuberculosis	6
Septicæmia	1

It appears that a great proportion of the children dying of acute pulmonary conditions, and especially bronchopneumonia, suffer from some affection of the middle ear. Figures from other observers suggest that this occurs in 90 to 99 per cent. of cases.

In many cases there were no local symptoms of the otitis media during life—the condition described as latent otitis media being present, very often with symptoms of general infection or gastro-intestinal disorder.

In two cases of meningitis the same organism was found in the ear and in the cerebrospinal fluid. In none of the tuberculous cases was the tubercle bacillus found in the middle ear. In two cases the fluid was sterile but in the others there was what appeared to be a secondary pyogenic infection. F. C. ORMEROD.

Fusospirochetic Otitis. P. MANGABEIRA-ALBERNAZ. (*Archives of Oto-Laryngology*, Vol. xii., No. 1, July 1930.)

In his excellent account of this rare disease the writer describes three cases which he has personally observed, and mentions twenty-five other cases recorded in the literature, of which he gives a synopsis.

The actual site of infection is the external ear; otitis media is rarer, and mastoiditis is still more rare. The three diagnostic features are ulceration, foul odour, and pain. The ulcer is often covered by membrane, or by granulations or small papillomata. The odour is characteristic and the pain is often intense. The presence of Plaut-Vincent organisms in the lesions confirms the diagnosis. That the organisms are definitely pathogenic is now well proved. The disease is found at all ages, is more common in rural districts, and in persons who are not clean. Prognosis is favourable and the best treatment consists in the daily instillation of 30 per cent. bismuth emulsion (in oil), combined with cleaning of the affected area.

Since writing his paper, the author has noted certain recent contributions to the subject, such as that of Held, who first described fusospirochetic otitis in 1905, and of Trutnev who has published a detailed study of fusospirochetic mastoiditis, with reports of twelve cases. DOUGLAS GUTHRIE.

Experimental Study of the Effect of Closure of the Eustachian Tube in the Dog. G. CLAUS (Berlin). (*Zeitschrift für Hals-, Nasen- und Ohrenheilkunde*, Band xxvi., Part 2, p. 143.)

Bezold and Scheibe were of the opinion that pure mechanical closure of the Eustachian tube was followed by absorption of air in the tympanum and ultimately by a "transudation" of serum or *hydrops e vacuo*. Politzer (according to Claus) and others considered such collections to be "exudations" of inflammatory nature. Claus endeavours to settle the question by means of numerous experiments on the dog, such as plugging the Eustachian tube, injecting paraffin round it, cutting and ligaturing or cauterising it or covering the

orifice with a flap of mucous membrane. Out of twenty-two experiments the tube was closed in only three. In one of these the bulla was filled with an exudation rich in cells and the mucous lining was thickened. In another the exudation contained very few cells and there was thickening of the mucous membrane. In the third there was in the dependent parts of the bulla a fluid containing few cells, and no thickening of the lining membrane. In two there was no noteworthy indrawing of the tympanic membrane. In the third indrawing was present. There were obvious inflammatory changes in the three instances of fluid accumulation resulting from complete closure. Although these experiments have not established the occurrence of a *hydrops e vacuo*, Claus is of the opinion, both on theoretical and clinical grounds, that it can occur. He considers that the question is not yet definitely settled. JAMES DUNDAS-GRANT.

The Stimulation of the Eighth Nerve in the Otolith Apparatus. F. LEIRI. (*Acta Oto-Laryngologica*, Vol. xiv., Fasc. 3-4.)

The sensory cells in the end-organs of all the branches of the eighth nerve are covered by cuticular structures which, when set in motion by mechanical forces, exert a pull on the hairs of the sensory cells which are embedded in them. The mechanical nature of the stimulation is obvious in the case of the organ of Corti with its membrana tectoria, and in that of the cristae ampullares of the semicircular canals with their cupulae; but it is less clear in regard to the otolith apparatus of the maculae staticae in the utriculus and sacculus. By a consideration of the minute anatomy of the cupula and otolith-membrane of these end-organs, the author shows how stimulation of the sensory cells takes place, as, for example, in falling movements, when there occurs a diminution of the normal pressure of the otolith-membrane on the gelatinous cupula with traction on the embedded hair cells. THOMAS GUTHRIE.

On Fatigue of the Auditory Function of the Labyrinth. I. M. KRUKOWER. (*Acta Oto-Laryngologica*, Vol. xiv., Fasc. 3-4.)

Fatigue of the non-acoustic function of the labyrinth has been investigated by repeated production of the post-rotatory and caloric reactions; but the diminishing response cannot in such experiments be regarded as a measure of fatigue of the labyrinth, as the repeated stimulation exhausts not only the nerve tissue but also the various eye and other muscles which manifest the reaction. For this reason much more attention has been directed to fatigue of the auditory function. The results of most workers, however, have been vitiated by the use of air-conduction, and the consequent failure to exclude fatigue of the tympanic muscles. In a normal ear it is impossible, even by using

tests of bone conduction, to exclude the middle-ear apparatus, so the author has carried out much of his work on patients who have had the membrane and ossicles removed by the radical mastoid operation.

By certain special tests he was able to demonstrate fatigue, not only of the acoustic labyrinth as a whole but of isolated portions of it concerned with the perception of specific tones. He investigated also the influence on auditory fatigue of different varieties of occupation. His finding in hysteria and neurasthenia of relatively good bone conduction with a high percentage of fatigue may be of practical diagnostic value. THOMAS GUTHRIE.

Experimental Researches on the So-called Postural Nystagmus during Acute Alcohol Poisoning in Rabbits. A. DE KLEYN and C. VERSTEEGH. (*Acta Oto-Laryngologica*, Vol. xiv., Fasc. 3-4.)

In the year 1913 J. Rothfeld described a form of spontaneous nystagmus which accompanies acute alcoholic poisoning in rabbits. It appears when the head is laid on either side, and continues so long as the head remains in this position. It has also a definite direction, the quick movement being directed towards the side on which the head is laid.

The authors made an experimental study of this variety of postural nystagmus, and were able to show that it was entirely unaffected by unilateral or bilateral removal of the maculae sacculi. This observation renders it certain that the nystagmus which occurs in some patients in the lateral recumbent position cannot be ascribed directly to a disturbance of the function of the sacculus. THOMAS GUTHRIE.

Interstitial Keratitis and Diseases of the Ear. SARGON and ROLLET. (*Archives Internationales de Laryngologie*, June 1930.)

Interstitial keratitis, dental lesions, and affections of the internal ear (Hutchinson's triad) are characteristic of congenital syphilis. The diagnosis should be made even if the Wassermann be found negative. One must not, however, expect the triad to be present except in a very few cases. In a series of forty-four cases, the authors found thirteen cases (29 per cent.) showing internal ear diseases. They state that owing to the occasionally slight degree of aural trouble the ear affection is apt to be overlooked. M. VLASTO.

Varicosity of the Œsophagus. G. G. BETTIN. (*Archiv. Italiani di Laringologia*, July 1930.)

The author has analysed fourteen cases of varicose veins of the œsophagus which occurred in sixty successive autopsies on patients who had died of various diseases.

The varicosities occurred in patients between 54 and 81, the majority being between 55 and 70. Such varicosity has, however, been reported in a baby.

Of the fourteen cases seven were male and seven female. It was found that the varicosity occurred most commonly at the lower end, next in order of frequency at the upper end, and last in the middle portion. In half the cases there was varicosity in the middle third, but except in two cases this was in association with varicosity at either end. The median varicosity was associated with lesions in the chest, of either the pulmonary or cardiovascular system.

The conditions present in association with the varicosities and apparently responsible were as follows:—

1. Affections of the liver and portal system		9 cases
Cirrhosis of the liver	6	
Brown atrophy of the liver	1	
Arteriosclerosis of the liver	1	
Occlusion of the portal vein	1	
2. Affections of the respiratory system including bronchitis and pneumonia associated with degeneration of the myocardium and liver.		5 cases

F. C. ORMEROD.

Two Cases of Mastoiditis following blows on the Mastoid Process. F. D'ONOFRIO. (*Archivio Italiano di Otologia, etc.*, July 1930.)

During the war many cases of mastoiditis following wounds of that region were seen, but in civil practice they are not so common. The author records two cases of such a complication.

The first was in a man of 60 who was badly bruised over the mastoid process. The bruises cleared up in a fortnight, but on the twentieth day he came to hospital with an acute mastoiditis of apparently four days' standing. The middle ear was also involved and the membrane perforated. At operation no fracture of the bone was discovered, but all the cells and the antrum were filled with purulent fluid.

The second case was that of a man of 47 who fell so that the tip of his mastoid struck the arm of a seat. The next morning it was swollen and painful, and these symptoms increased for a fortnight, by which time they had become very severe. The middle ear was quite normal. Exploration revealed a small fistula through the tip leading into a cell filled with pus and granulation tissue with inflamed bone around it. The antrum was not affected.

It would appear that in the first case there was an effusion of blood into the mastoid cells and the middle-ear, which later became infected either from the Eustachian tube or from the blood.

In the second case there was apparently a small fracture of the tip of the process and the effused blood and damaged tissues were later infected from the blood-stream. The second case especially is of interest, and either might raise questions of medico-legal importance.

F. C. ORMEROD.

The Clinical Value of Pulsation in the Lateral Sinus. S. VALENTI. (*Bolletino delle Mallattie dell' Orecchio, della Gola e del Naso*, May 1930.)

The author has investigated all the writings on the subject of the pulsation of the lateral sinus and has analysed the notes of the operations on 124 cases in which the lateral sinus was exposed.

Reviewing this material, he has come to the following conclusions :—

1. The lateral sinus does not normally pulsate.
2. Pulsation in the lateral sinus is due to transmission of pulsation from the brain which is not conducted by the normally elastic sinus; the flow of blood in the sinus is continuous and not pulsatile.
3. The sinus pulsates when some pathological condition either abolishes or markedly reduces the elasticity of its walls. This most commonly occurs in cases of complete thrombosis but may sometimes be found in cases of mural thrombosis.
4. Periphlebitis may constrict the vessel to such an extent that when it is opened pulsation becomes apparent.
5. In some cases of thrombosis there is no pulsation. This is usually due to inflammatory changes having caused softening or liquefaction of the clot.

F. C. ORMEROD.

A Case of Traumatic Paralysis of the Facial Nerve. GIUSEPPE COMEL. (*Bollettino delle Mallattie dell' Orecchio, della Gola e del Naso*, August 1930.)

A patient whilst cycling struck his head against a wall; he suffered from a right facial paralysis and bleeding from the right ear and was unconscious for three days.

On examination there was a swelling of the posterior wall of the external meatus, but the tympanic membrane and the middle ear cleft appeared normal. Functional tests indicated an uninjured internal and middle ear, and the soft palate moved normally. Injury to the facial nerve distal to the middle ear was diagnosed and exploration was undertaken. On exposing the surface of the mastoid process there was found a fracture just below MacEwen's triangle. The mastoid cells were removed and the posterior osseous wall was found to be comminuted. The fragments were removed and a length of the

facial nerve was found to be exposed. Following this decompression recovery was very rapid.

The author points out that the mobility of the soft palate is against an intracranial lesion, the normal function of the middle and internal ears indicated a lesion outside their limits.

In fractures of the external meatus pain on movement of the mandible suggests the anterior wall, pain on pulling out the pinna from the head suggests the posterior wall, as being the site of the fracture. F. C. ORMEROD.

NOSE AND ACCESSORY SINUSES.

The Common Cold. A. HILDING. (*Archives of Oto-laryngology*, August 1930, Vol. xii., No. 2.)

The common cold is not a single disease entity. Colds caused by exposure and colds caused by infection may be interrelated. No single organism is responsible, and the predominant organism varies with the year, the epidemic, and the individual. This accounts for the inefficacy of vaccines. The writer has studied twenty-five biopsy specimens taken from the inferior turbinal at various stages of the common cold. Bacteria were numerous on the surface of the mucosa but were never found in the tissue or between the cells. During the early stage of a cold there is submucous œdema, following an infiltration of polyblasts and loosening and separation of the surface epithelial cells. Much of the epithelium has disappeared by the third day and the nasal secretion contains many ciliated cells. Then follows an active proliferation, and by the eighth day the surface is again intact, and covered by a many-layered epithelium, full of polymorphonuclears. Then the infiltration disappears and the cells return to the normal columnar form.

The appearances are well shown in an excellent series of microscopic sections. DOUGLAS GUTHRIE.

A Conservative Treatment of Chronic Maxillary Sinusitis. H. A. TROTTER. (*Archives of Oto-laryngology*, July 1930, Vol. xii., No. 1.)

The conservative treatment advocated in this paper consists in the application of electrocoagulation (diathermy) to the diseased lining of the sinus. The electrode is introduced through a small opening in the canine fossa, and its action is controlled by the simultaneous use of the antroscope. This useful instrument is constructed on the lines of an irrigating cystoscope, and may be introduced into the antrum through a trocar puncture of the outer nasal wall or, preferably, of the canine fossa. With the aid of the antroscope the entire antral cavity

may be inspected, and electrocoagulation may be practised under local anæsthesia.

The writer has treated ten cases with satisfactory results.

DOUGLAS GUTHRIE.

The Alkali Reserve of the Blood in Nasal Obstruction. E. LÜSCHER (Bern). "Proceedings of the Collegium Oto-Laryngologicum," 1929. (*Internat. Zentralblatt f. Ohrenheilkunde und Rhino-Laryngologie*, June 1930.)

Artificial obstruction to nasal respiration brought about by narrowing the nostrils causes a decrease in alkali reserve in the blood, *i.e.*, an increase of hydrogen-ion concentration. The same result in a lesser degree is caused by chronic pathological nasal or pharyngeal obstruction. A decrease is also found in cases of hyperplasia of the tonsils, in the absence of any nasal obstruction. (*v.* this *Journal*, 1930, p. 514.)

In the discussion on Lüscher's paper Negus referred to experiments carried out by Professor McDowell and himself in cases of laryngeal obstruction. In these there was found to be a marked increase of CO_2 in the alveolar air, ranging up to as high as 8 per cent. (5·6 per cent. is normal). This would lead to a corresponding increase of CO_2 (or hydrogen ions) in the blood, were it not for an increase in the quantity of "buffer substances" which keep down the amount of free acid. The chief of these is ammonia, the increase in which is due to the diminished excretion of nitrogen in the form of urea. The adaptation of the blood in the condition of excess of CO_2 is shown by the apnœa which occurs after tracheotomy. This brings about a sudden reduction of the CO_2 in the alveolar air and in the blood. The excess of buffer substances has already reduced the amount of free CO_2 in the blood below the concentration necessary to stimulate the respiratory centre. Patients may even die in a condition of apnœa due to abeyance of respiratory stimulation, unless CO_2 is supplied to the lungs with the inspired air. G. WILKINSON.

The Desensitivisation Treatment of Vaso-Motor Rhinitis. AUREL RETHI (Budapest). (*Zeitschrift für Hals-, Nasen- und Ohrenheilkunde*, Band xxvi., Part 2, p. 175.)

When a definite allergic cause, such as food, feathers, horsehair, etc., cannot be determined, Rethi is convinced that a non-specific desensitiser should be tried, containing a number of ingredients among which the one suitable to produce the protein effect may be found. He points out that the skin-test may, if negative, be misleading, the skin being less sensitive to some proteins than the nasal mucous membrane. Among other agents he has used a "Cuti-vaccine Paul."

JAMES DUNDAS-GRANT.

Abstracts

LARYNX.

The Importance of conserving the Epiglottis in the Operation of Laryngectomy for the Re-education of Speech. DECIO SCURI. (*Archivio Italiano di Otologia, etc.*, January 1930.)

The author discusses the various methods of leading a current of air from the tracheal opening to the mouth and the methods of producing speech after the operation of complete laryngectomy.

He states that in cancer of the larynx the epiglottis is rarely involved and he leaves it *in situ* if it is apparently healthy. He finds that the epiglottis takes a very important part in the production of voice by his method.

The author's method relies on the œsophagus for the current of air for sound production. When the operation area is quite healed the patient is trained to take into the œsophagus a definite amount of air and to be able to release it at will. He does regular daily exercises which include the blowing about on a table of small pieces of paper and card, causing the flame of a candle to oscillate in various degrees at different distances and finally extinguishing it at gradually increasing distances.

When complete control of the current of air has been attained attempts to pronounce the consonants are made. The first is *p* followed in turn by *t*, *f*, *r*, *m*, *n* and so on. When the consonants are satisfactory the vowels are attempted; they are produced by setting into vibration the free portion of the epiglottis. By placing the hand on the hyoid region the vibrations from the epiglottis can be felt.

F. C. ORMEROD.

Tuberculoma of the Larynx associated with Carcinoma. D. G. W. VAN VOORTHUYSEN. (*Acta Oto-Laryngologia*, Vol. xiv., fasc. 3-4.)

The case was that of a man 48 years of age who had been hoarse for about a year and had latterly developed marked laryngeal obstruction with cyanosis. The whole of the left two-thirds of the larynx was concealed by a rounded, smooth red tumour the size of a small chestnut. The attachment was by a broad base to the inner surface of the left aryepiglottic fold. The surface was intact and without any trace of ulceration. The posterior wall of the larynx showed some nodular thickening. The sputum was free from tubercle bacilli and the lungs from any evidence of disease. After a preliminary tracheotomy the growth was removed by laryngofissure, and microscopic examination showed it to be a pachydermatous fibro-tuberculoma, in the base of which there had developed a horny squamous epithelioma.

Tuberculomata are rare in the larynx, and only about half a dozen cases are on record in which they have been associated with epithelioma.

THOMAS GUTHRIE.

Pharynx

Pachydermia Laryngis as a Precancerous Condition. W. KLESTADT. (*Zeitschr. f. Laryngologie, Rhinologie, etc.*, Oct. 1930, Band xx., p. 30.)

This comparatively rare sequence is illustrated by three cases. One patient, a man aged 75, had been under practically continuous observation for a period of eighteen years when finally, early in 1930, the laryngeal changes assumed a malignant character. In 1912 a whitish thickening was seen on the left vocal cord. In 1920 the diagnosis of pachydermia was confirmed by a histological examination. In 1921 there was extensive pachydermia on both sides; a laryngofissure was done and both vocal cords were cleared of their irregular thickenings. After this the larynx remained free for two years. In 1923 there was again a recurrence of pachydermia, first on the left and then on the right side. For the next two years there was no change. Then gradually the thickenings disappeared spontaneously, and in October 1927 both cords were free of any whitish deposits and showed good movement on phonation.

The patient was not examined for two years. In July 1929, the author observed renewed activity of the pachydermia especially on the right cord, which for the first time appeared fixed. In January 1930, after excision of a piece from the right side, the diagnosis of carcinoma was made.

The author thinks that the laryngofissure followed by a superficial removal of the outgrowths should not have been done. In view of the later history, a deep removal of the cord would probably have been better. J. A. KEEN.

PHARYNX.

Carcinoma of the Oral Cavity. LESTER HOLLANDER. (*Zent. für Hals-, Nasen- und Ohrenheilkunde*, 1930, Vol. xv., p. 703.)

The author distinguishes between two kinds of carcinoma in the oral cavity. A superficial variety, primary in the mucous membrane, characterised by ulceration, at first superficial, or by the presence of a neoplastic nodule and with but little deep infiltration.

The second form, characterised by small surface changes and by deep infiltration, may develop from the first.

The differential diagnosis between carcinoma and primary or tertiary syphilis and tuberculosis is discussed. The author believes that carcinoma may arise in any skin defect, or abnormal development of the horny portion of the epidermis, not only in leucoplakia as is generally recognised, but also from papillomata. He also points out the importance of chronic irritation of the mucosa by broken teeth, badly fitting plates, or crowns, as a cause of origin. The most

important point in the paper is the emphasis laid on dental sepsis as a precancerous condition. In a series of twenty-four patients, of ages ranging from 34 to 73, with carcinoma of the oral cavity, all showed advanced dental sepsis. Hollander believes that no attempt should be made to deal with a carcinoma until every possible source of oral sepsis has been removed. F. W. WATKYN-THOMAS.

Large Suppurating Cyst of the Second Branchial Cleft. Operation, Cure. R. BÁRÁNY. (*Acta Oto-Laryngologica*, Vol. xlv., Fasc. 3-4.)

The patient, a married woman 29 years of age, had suffered, two years before coming under the author's observation, from an abscess in the region of the right tonsil, which was repeatedly opened. Four months later the abscess, having reappeared, was again opened, and there afterwards persisted a large cavity with a small opening from which the patient daily expressed a quantity of offensive pus.

The cavity was injected with lipiodol and a radiogram showed its limits. At the operation (under local anæsthesia), the cyst was separated from its bed chiefly by finger dissection, which was rendered difficult by firm adhesions. The upper pole of the cyst was attached to the base of the skull in the region of the right fossa of Rosenmüller. Its posterior wall was in contact with the sheath of the great vessels, but was separated from it without difficulty. Healing was complete in a fortnight.

The cyst after removal was 6 cm. long and 3 cm. broad. It was lined with squamous epithelium exactly like that of the mouth. It appeared to have originated in Rosenmüller's fossa and accordingly belonged to the second branchial cleft.

THOMAS GUTHRIE.

A Case of Simultaneous Diphtheritic and Syphilitic Infection of the Throat. HESTER F. DE C. WOODCOCK. (*Lancet*, 1930, Vol. ii., p. 298.)

The author describes the case of a man of 45 in whom virulent diphtheria organisms were persistently present in a throat which showed clinically a secondary syphilitic lesion. The condition failed to clear up on administration of diphtheria antitoxin. The true nature of the lesion was proved by the Wassermann reaction and by the response to antisyphilitic treatment. Four months before admission to hospital, the patient contracted a "septic finger," following injury by a piece of wire; this healed shortly after antisyphilitic treatment was started, and since there was no other evidence of primary sore, the question is asked: Was this finger the site of the initial lesion?

MACLEOD YEARSLEY.

Œsophagus and Endoscopy

ŒSOPHAGUS AND ENDOSCOPY.

Foreign Bodies in the Respiratory Tract. Emphysema and Atelectasis by Obstruction. EDMOND AUCOIN. (*Archives Internationales de Laryngologie*, June 1930.)

Some surgeons deny that changes in the lungs, due to obstruction of the respiratory tract by a foreign body, are secondary to the mechanical valve action of the foreign body. They affirm that these changes are due to spasm of the bronchial musculature.

Seven cases are reported with full clinical and radiographic details in support of the direct valve obstruction theory. The following conclusions are reached:—

1. Bilateral pulmonary emphysema can follow from severe obstruction of the trachea or larynx, particularly in cases where there is marked expiratory dyspnœa.
2. If there does exist a condition of bronchial musculature spasm it is never seen during endoscopy.
3. Partial obstruction of a bronchus is accompanied by an emphysema of the lung beyond the obstructed area.
4. Complete obstruction of a bronchus is accompanied by a collapse of the lung beyond the obstruction.

M. VLASTO.

Congenital Atresia of the Œsophagus. C. J. POLSON. (*Lancet*, 1930, Vol. ii., p. 135.)

The author communicates the case of a female child aged 7 days, admitted for three days' persistent vomiting. The atresia was at the junction of the upper and middle thirds of the œsophagus; the upper end of the lower segment communicated with the trachea one quarter of an inch above the bifurcation by an opening one eighth of an inch in diameter. The foramen ovale was patent. MACLEOD YEARSLEY.

Studies of the Mechanics of Deglutition. Diagnostic Import of the Movements of the Pomum Adami. D. LEDOUX (Brussels). "Proceedings of the Collegium Oto-Laryngologicum," 1929. (*Internat. Zentralblatt für Ohrenheilkunde und Rhino-Laryngologie*, June 1930.

The first act of swallowing is a movement of elevation of the larynx. The elevator muscles belong to two groups, the anterior and posterior. The posterior group consists of the upper half of the middle constrictor, the posterior belly of the digastric, the stylo-hyoid, stylo-pharyngeus and thyro-hyoid. All these pull the larynx upwards, whilst the inferior half of the middle constrictor and the oblique portion of the inferior constrictor raise up the hypopharynx at

the same time. The anterior group consists of the mylo-hyoid, genio-hyoid, posterior fibres of the genio-hyo-glossus, and anterior belly of the digastric. These not only pull the larynx up, but also forward. This forward movement of the larynx is of great importance as the back of the larynx is pulled away from the spinal column and the hypopharynx is opened out. Also, the larynx is pulled up behind the base of the tongue, and its upper orifice is obliterated. The author considers that constriction of the circular pharyngeal muscles plays little part in the act of swallowing. In the swallowing of solids the superior constrictor contracts to direct the bolus over the right-angled bend between the mouth and pharynx, but even this is not necessary in the swallowing of fluids. All that is required is the relaxation of the upper end of the œsophagus. The presence of food, liquid or solid, in the hypopharynx provides the necessary stimulus for the reflex inhibition of the sphincter. This is shown by the fact that cocainisation of the hypopharynx prevents this relaxation.

In dysphagia, the movements of the pomum adami provide an indication as to whether it is the anterior or posterior group of muscles which is at fault. In case of paralysis of the anterior group the larynx is pulled up, but the pomum is not brought forward under the chin. Hesitation in swallowing occurs and the food is retained in the mouth. In swallowing fluids, the head is slightly thrown back and movements take place as though to guide the stream into one or other lateral bucco-pharyngeal gutter. The chief muscle in the anterior group is the mylo-hyoid which is innervated from the 5th nerve, whilst the muscles of the posterior group receive their nerve supply from 7th, 9th, 10th, and 11th. The anterior group is the first to be affected in bulbar paralysis, so that the "sign of the pomum adami" is an important indication in early cases of this disease. Unilateral paralysis of one or both groups of the elevator muscles may occur from pressure on the nerves by basal, jugular fossa, or neck tumours. The drawing of the pomum adami to one side in swallowing is one of the most evident signs of such unilateral paralysis. G. WILKINSON.

Spasm of the Œsophagus. B. BRUZZI and G. ALAGNA. (*Bollettino delle Mallattie dell' Orecchio, della Gola e del Naso*, September 1930.)

The authors note that this condition was first described by Hippocrates, and after discussing the anatomy and physiology of the œsophagus, divide the spasm of the œsophagus into primary and secondary.

Primary spasm is divided into acute and permanent. The acute condition tends to occur in young and nervous subjects with, possibly, the association of minute lesions in the mucosa. The spasm is brought on by attempts to swallow large or insufficiently masticated

masses of food. It is much more likely to occur at the upper than the lower end of the œsophagus. It soon passes off but tends to recur. The permanent spasm more often occurs at the lower end and is often associated with some definite lesion of the nervous system or some lesion of the pharynx or œsophagus.

Secondary spasm occurs at either end of the œsophagus and is due to some inflammatory, neoplastic, or aneurysmal condition in the mediastinum or neighbouring regions. It may also be associated with benign or malignant growths of the œsophagus. Obstruction due to these conditions is not so complete as in spasm but is less variable.

The complications of spasm, especially of the chronic types, are pressure pouches or mega-œsophagus. The first is due to herniation of the mucosa between the muscular fibres of the œsophagus and the latter, unless it is due to congenital defects in the neuro-muscular wall of the œsophagus, is due to spasm at the cardiac end of the stomach.

Treatment consists in the treatment of any primary lesions, in the administration of nerve sedatives, of care in mastication and swallowing and, if necessary, in slow and progressive dilatation of the affected portion of the œsophagus. F. C. ORMEROD.

MISCELLANEOUS.

Experimental Investigations on the Question of Selected Localisation of Bacteria, especially in relation to Affections secondary to Tonsillar Disease. WALTER HESSE (Königsberg). (*Zeitschrift für Hals-, Nasen-und Ohrenheilkunde*, Band xxvi., Heft 2, p. 198.)

The question was whether bacteria obtained from the tonsils of patients with secondary affections localised in particular organs selected those special organs in animals into which they were injected. This was the view held by Rosenow in his studies on elective localisation (*Journal of Dental Research*, Vol. i., No. 3, p. 205), but Hesse, adopting similar methods, found that the numbers of instances in which special organs (joints and kidneys) were selected were the same whether these organs were affected in the patient or not. He thus found himself in disagreement with Rosenow's conclusions.

JAMES DUNDAS-GRANT.

Avertin. Discussion at the Berliner Otolaryngologischen Gessellschaft, October 1929. (*Internat. Zent. f. Ohrenheilkunde und Rhino-Laryngologie*, June 1930.)

In the course of a discussion on the technique of operations for the removal of cancer of the tongue Sörensen pointed out that a serious disadvantage of avertin for throat and mouth operations was the

uncertain and often prolonged duration of narcosis after the operation. For the prevention of inhalation infection of the lungs a rapid restoration of the cough reflex after operation was all-important. He considers local anæsthesia, by infiltration with novocain, to be the method of choice. J. WILKINSON.

Congenital Syphilis and Anomalies of the Teeth. MIESCHER (Zurich). (*Schweiz. Med. Wochenschrift*, 1929, S. 1202. Quoted in *Internat. Zentralblatt f. Ohrenheilkunde und Rhino-Laryngologie*, May 1930.)

1,814 school children were examined. All cases with typical pegged and notched central incisors (Hutchinson's) gave a positive Wassermann reaction. Other dental anomalies characteristic of congenital syphilis are the "bud-like" six-year molar (Pflüger) and the pegged (but not notched) upper central incisor. On the other hand microdontia, wide spacing or displacement of the upper incisors are frequently found in non-luetic subjects. J. WILKINSON.

Left-handedness and Stammering. K. KISTLER (Zurich). (*Schweiz. Med. Wochenschrift*, 1930, S. 32. Quoted in *Internat. Zentralblatt f. Ohrenheilkunde und Rhino-Laryngologie*, May 1930.)

K. examined 163 stammerers and 508 stutterers. Amongst the stammerers left-handedness was frequent. This he attributes to defective development of the speech centre. There was no abnormal incidence of left-handedness in stutterers. J. WILKINSON.

Idiosyncrasy to Adrenalin. HALLE. (*Zeitschr. f. Laryngologie, Rhinologie, etc.*, August 1930, Band xix., p. 435.)

Adrenalin injected together with the local anæsthetic solution (novocain 0·5 per cent.) is said to cause limited areas of tissue necrosis in very rare instances. The author describes five such cases which he has observed during an operative experience extending over eighteen years. In two patients small areas of skin necrosed near the tip of the nose and in the lower eyelid; in three others there occurred a necrosis of the whole nasal septum. This effect was in each case attributed to an abnormal vessel spasm caused by the adrenalin in the solution used. This spasm lasted a sufficiently long time to cause localised necrosis of the tissues. Although a severe reaction of this kind is extremely rare certain precautions can be taken in order to prevent its occurrence: (1) Instead of the usually accepted ratio of one drop of adrenalin solution to each c.c. of novocain solution, one should use one drop for 3 to 10 c.c. of novocain solution. (2) After the operation, if an area of skin be seen to remain particularly white ("schneeweiss"), one must apply heat in the form of fomentations

or diathermy. It is also a good plan to scarify the area by puncturing it in many places with a needle until bleeding is seen. The author believes that such scarification relieves the severe spasm.

J. A. KEEN.

Idiosyncrasy to Adrenalin. Discussion by Berliner Otolaryngologischen Gessellschaft, May 1929. (*Internat. Zentralblatt f. Ohrenheilkunde und Rhino-Laryngology*, June 1930.)

The introducer, Halle, cited six cases which had occurred in his surgical practice, extending over a period of thirty years, in which gangrene, apparently non-infective, of the skin or mucous membrane had followed infiltration with anæsthetic solutions containing adrenalin. The concentration of the latter had never exceeded one drop in 1 c.c. of the solution. Three of the cases were simple submucous resections of the septum. Most of those who discussed the paper were sceptical as to the actual danger of using adrenalin in infiltration solutions, though it was the opinion of some of the speakers that the strength of the solution used by the reporter was excessive.

G. Findler extended the discussion to the subject of paroxysmal sneezing and rhinorrhœa, so commonly experienced after application of adrenalin to the nasal mucous membrane. Findler was under the impression that such unpleasant reactions were more frequent now than long ago. In his own experience they were almost entirely confined to his private clientèle. They were rarely complained of by hospital patients. Their incidence did not appear to be related to the employment of any particular preparation of adrenalin. Several speakers concurred in the opinion that the use of adrenalin for the purpose of obtaining a better view of the interior of the nose was undesirable, and that ephedrin was quite efficient for this purpose, and free from harmful action. It is doubtful whether this drug can replace adrenalin in nasal operations. It is remarkable that paroxysmal sneezing and rhinorrhœa rarely follow the free use of adrenalin as a preliminary to operation in the nose, and also that large doses can be given by intravenous injection without danger. J. WILKINSON.

Percaine: A New Local Anæsthetic in Oto-Laryngology. CESAR HIRSCH. (*Archives Internationales de Laryngology*, June 1930.)

Percaine is a highly soluble local anæsthetic. It can be sterilised by boiling, and is readily associated with adrenalin. When applied by itself to the mucous membrane it produces a slight degree of hyperæmia, but it is the association with adrenalin which produces the required vaso-constriction. A 2 per cent. solution has the same anæsthetic effect as a 20 per cent. solution of cocaine. The anæsthetic effect lasts much longer than cocaine, it is non-toxic, and does not produce any psychical reactions. M. VLASTO.