ABSTRACTS

EAR.

On the Question of the Pneumatisation of the Middle Ear. Histological Investigations on the Temporal Bone of the New-born. W. ALBRECHT. (*Acta Oto-Laryngologica*, Vol. xiv., Fasc. 1-2.)

That the degree of development of the air-cells in the temporal bone depends on individual predisposition is rendered probable by an X-ray examination of the conditions present in twins. An almost exact correspondence in the degree of pneumatisation was found in 66 per cent. of uni-ovular twins as against only 37 per cent. of bi-ovular twins. Moreover, among the uni-ovular twins the highest degree of correspondence (92 per cent.) occurred in those with the most highly cellular mastoids, and the lowest degree (42 per cent.) in those with few and small cells, but in those with compact acellular mastoids the degree of correspondence rose again (66·6 per cent.).

This may be due to the power possessed by a very vigorous and energetic mucous membrane of overcoming all obstacles, so that the correspondence reaches 92 per cent. in twins with the most cellular mastoids. In the presence of lesser degrees of energy, the influence of external factors preventing pneumatisation is of more and more account, so that the correspondence falls to 42 per cent. in those with only slight air-cell development; while in compact mastoids in which the mucous membrane is quite incapable of pneumatisation, external factors are once more without influence and the correspondence percentage rises again and reaches 66·6 per cent.

In order to obtain proof of individual differences in the capacity of the mucous membrane for pneumatisation and to determine by what factors it is influenced, the author made a histological examination of the temporal bones of 44 new-born infants (29 full-time and 15 premature).

It may, of course, be assumed that during fœtal life the process of pneumatisation would be unlikely to be much interfered with by external influences, and it was therefore significant to find that the further the researches proceeded the clearer it became that there existed very great individual differences in the tendency to air-cell formation. Pneumatisation was quite advanced in some premature infants and on the contrary very defective in some that had reached full time.

Correspondence in the degree of pneumatisation on the two sides was almost complete in 39 of the 44 infants and in the remaining 5 the difference was of a moderate degree.

Abstracts

In those cases in which a suppurative otitis media was present in one ear and not in the other, there was no indication that this had interfered with pneumatisation.

It is evident, therefore, that even during intra-uterine life there are great differences in the activity of pneumatisation, and the author's specimens seem to show corresponding differences in both the reproductive energy of the epithelial cells and density of the embryonic connective tissue into which they have to make their way. The degree of pneumatisation in his view, therefore, depends upon the relation between the energy of the epithelium and the resistance offered to it by the surrounding tissue.

In many of the specimens examined hæmorrhages were observed, probably in most cases due to birth injuries. These, besides damaging the epithelium and connective tissue, would cause infiltrative inflammatory changes and may perhaps be a common cause of defective pneumatisation. THOMAS GUTHRIE.

Contribution to the Study of Alcohol-Nystagmus in Rabbits. KATO NAWOKICHI. (*Zeit. für Oto-, Rhino- und Laryngologie*, 1928-1929, Band xxxiv., p. 27.)

The results of the author's experiments are as follows:—

(1) The so-called "alcohol-nystagmus" of rabbits that occurs in the lateral position is probably independent of the cerebral hemisphere. Frontal section through the cerebrum, including some of the anterior half of the region of the corpora quadrigemina, does not affect the characters of alcohol-nystagmus.

(2) It is also probable that the production of alcohol-nystagmus is uninfluenced by the vermis and the cerebellar hemispheres.

(3) More effect is produced on the alcohol-nystagmus by injury in the region of the nucleus nervi vestibularis in the medulla oblongata than by injury to the labyrinths. On this evidence it seems probable that the alcohol-nystagmus has a central origin.

(4) In rabbits in the presence of alcohol-nystagmus the labyrinth still reacts to mechanical, caloric, and rotary stimuli. This demonstrates the preservation of labyrinthine excitability.

(5) After complete unilateral destruction, before compensation has been acquired, the signs of acute alcoholism are masked by the signs of labyrinth destruction; when compensation has been restored, the alcohol-nystagmus can again be produced in the lateral position during acute alcoholism. AUTHOR'S ABSTRACT (*Translated*).

Ear

Ear Symptoms in Tumours of the Acoustic Nerve. ERICH RUTTIN. (*Acta Oto-Laryngologica*, Vol. xiv., Fasc. 1-2.)

The author discusses the aural findings in tumours of the acoustic nerve, as observed in fifteen clinical and post-mortem cases. Almost all these patients were deaf on the side of the tumour and the caloric test failed to produce any responses whatever, though a number of them were sensitive for the turning test.

It seems that in acousticus-tumours either sensitiveness for turning may still exist even when deafness and loss of response for caloric stimulation are present, or there may be a compensation-phenomenon which may perhaps be considered as an over-compensation; as the after-turning nystagmus gives high data, and vertigo and typical head and body reactions are found; while much lower data of the after-turning nystagmus are observed in the typical compensation after destruction of the labyrinth, whereby vertigo and head and body reactions are slightly present or entirely absent.

It is also of importance that in tumours of the acoustic nerve, the caloric reaction of the other side is normal or somewhat delayed, contrary to cases of tumours of the mid-brain, when almost always an active caloric and turning reaction is present on both sides.

AUTHOR'S ABSTRACT.

The Prognosis of Mastoidectomy in Infants. DOTT. CAMINITI FRANCESCO PAOLO. (*Bollettino delle Malattie dell'Orecchio della Gola e del Naso*, February 1930.)

The author discusses cases of breast-fed infants who, after an apparently successful operation for mastoidectomy, have become pale, with weak, rapid pulse, and temperature of 102-103, and have died with symptoms of profound shock. No lesions of the lungs or meninges were found in any of these infants, and the phenomena were ascribed to the thymo-lymphatic state. The author does not consider that these cases are due to general anæsthesia, as he has had no such catastrophes in a series of cases in which chloroform was administered, and he does not think that the diet or the length of the operation are responsible; but he puts forward the suggestion that the deaths are due to a septicæmia which is not discernible by our present methods, or to a toxæmia due to a particular virulence of the organisms present in the infected area. Dott. Ugo Maggiorotti (*Bollettino delle Malattie dell'Orecchio, etc.*, July 1930), writing on the same subject, does not entirely agree with the above and puts forward a number of rules which he suggests may reduce the risk of sudden post-operative death in sucklings. He recommends that the operation and the anæsthetic be cut as short as possible, that great

care be taken to prevent damage to the tissues and thus reduce shock, that the operation be performed as early as possible to prevent toxic absorption, that great care be taken that the infant neither inhales nor swallows any blood, that alkalies be given with the food, and that for forty-eight hours after the operation a mild expectorant be administered. F. C. ORMEROD.

Comparative Anatomical Studies in Connection with the Aquæductus Cochleæ and its Relations with the Subarachnoid Space. R. KARBOWSKI. (*Monatsschrift für Ohrenheilkunde*, June 1930.)

This communication is the result of experimental dissections and other investigations carried out on the guinea-pig, rabbit, dog and man, which are described in detail and supported by a very comprehensive description of the technique employed, and by various illustrations. The author's conclusions are summarised as follows:—

(1) In the guinea-pig, the rabbit and the dog there is a free communication between the subarachnoid space and the perilymphatic space of the inner ear.

(2) A free exchange of fluid between these spaces is present in the guinea-pig and in the rabbit.

(3) In these animals a membranous aquæductus cochleæ is present, which arises in direct communication with the arachnoid sheath of the glossopharyngeal nerve or from its vicinity, and is continued into the bony aquæductus cochleæ covered by the dura.

(4) The histological structure of the membranous aquæductus cochleæ varies in animals. In most cases, the membranous aquæduct appears as a structure consisting of permeable fibrous tissue, and not uncommonly in guinea-pigs and rabbits a hollow tube can be discovered.

(5) A subdural space is in most cases demonstrable, but there are cases in which the membranous aquæduct is inseparably connected with the dural sheath.

(6) The anatomical condition in man is similar to that found in animals—that is to say, there is just a connection between the subarachnoid space of the brain and the perilymphatic space of the inner ear, but in all cases it is not equally large and it is often not easy to demonstrate a lumen.

Cases also exist in which the canal is either partly or completely filled with dense fibrous tissue, so that the lumen appears obliterated—whilst in other cases, a free wide-open canal is present.

(7) In man a free communication is present between the subarachnoid space of the brain and spaces of the bone marrow, by means of the perivascular arachnoid sheaths.

(8) A free communication likewise occurs between the subarachnoid space of the brain and the subepithelial tissue of the inferior wall of the middle ear, by means of the canal for the tympanic nerve.

The article terminates with a note from the writer suggesting that the result of these investigations should offer a solution for many of the problems of aural pathology—the explanation of which has hitherto been obscure. ALEXANDER TWEEDIE.

Stereo-Röntgenography of a Petrous Bone, especially of a Labyrinth. Dr Y. YOSHIYE (Tokio Imperial University). (*Zeit. f. Oto-, Rhino- und Laryngologie*, 1928-29, Vol. xxxiv.)

Using the skull, at first, I have filled the labyrinth with a medium which makes a deep shadow, a painting oil, "Blanc d'Argent," and then determined how the skull must be laid on the X-ray table to obtain the best shadow of the labyrinth which is able to overlook the labyrinth and moreover the petrous bone.

The angles used in this position must be exact and not approximate. For obtaining these angles I used a head-clamp, an inclinometer of a head, and a special water-level of my own design.

Using this skull I obtained next in this position and with these instruments a stereo-röntgenogram of the labyrinth. Then I have tried it on a cadaver and on a living person.

The technique which I used for the radiography of the labyrinth is a modification of that used by Stenvers in his work, *Ueber die Bedeutung der Radiographie des Felsenbeins für die otologische Diagnostik.* With regard to the apparatus, one requires a tube with the very finest possible focus and an exact inclinometer of a head. A very small and long cone, and a Potter-Bucky diaphragm are necessary to prevent, as much as possible, the scattered radiation.

The patient is laid face downwards on the X-ray table, and his "German" horizontal and sagittal plane are placed at a vertical angle to the plate. The head is then firmly grasped in the head clamp and inclined towards the vertex at an angle of 30° so that the "German" horizontal plane is placed at an angle of 30° to the plate.

We will presume that a radiogram is required of his right labyrinth. Then the head is rotated through an angle of 45° to the right so as to bring the right petrous bone parallel to the plate.

The tube is now centred over the right labyrinth, that is, over a point midway between the tip of the right mastoid process and the external occipital protuberance.

To obtain the stereo-röntgenogram of this labyrinth in this position, it is enough to take two photographs according to the principle of a stereo-röntgenography. AUTHOR'S ABSTRACT.

Cranial Trephining "at a Distance." A General Method of Diagnosis and Treatment of all Intradural Complications of Otitic Origin. Dr. ABOULKER and Dr. BADAROUX (Algiers). (*Archives Internationales de Laryngologie*, April 1930.)

The authors' own conclusions are as follows:—

1. The treatment of intradural complications of middle-ear infections is dominated by the following considerations: (*a*) absolute necessity of early diagnosis and treatment; (*b*) difficulty of diagnosis both as regards differentiation and localisation; (*c*) the necessity of some exploratory method which combines diagnosis and treatment. Such a method would be analogous to exploratory laparotomy.

2. The selected method should (*a*) harm the patient as little as possible; (*b*) require a flexible and precise technique to assure the treatment of all intradural complications the nature of which cannot be precisely ascertained by the clinical methods at our disposal.

3. The time-honoured mastoid route, both septic and narrow, does not conform to the above conditions and must be discarded. It is only on the rare occasions when a meningeal fistula is encountered that a transmastoid drainage is justifiable.

4. Equally unjustifiable is the pre-otological operation of distant exploration without a preliminary operation on the mastoid. Such a method relies entirely on clinical data, and takes no cognisance of the valuable information to be obtained by mastoid exploration. Leaving untouched the primary focus of infection, a permanent cure cannot be obtained.

5. The only sound therapeutic measures are the radical mastoid operation followed by trephining away from the mastoid area, either through the squamo-temporal or the occipital areas. By such a method exploratory puncture can be carried out through an aseptic field, and an abscess can be drained in a more satisfactory manner.

M. VLASTO.

Contribution to the Clinical Aspect and Histo-Pathology of the Auditory Organ in Acute Leukæmia. ANT. PŘECECHTĚL. (*Oto-Laryngologia Slavica*, Vol. ii., Fasc. 1, March 1930.)

A case is described of a girl, aged 6, suffering from acute myeloid leukæmia and cholesteatoma of her right ear, who died of the leukæmia after operation. Her hearing was—right, conversation at 0·75 m., left, whisper at 10 m. Both cochleæ were sectioned, and showed

opposite types of degeneration—right, hypertonic, left, hypotonic—thus supporting Wittmaack, who holds that in hypertonic degeneration the hearing is markedly depreciated because of the pressure on the nerves of the cochlea, whereas in hypotonic degeneration the hearing is little affected although the microscopic changes may be apparently greater.

E. J. GILROY GLASS.

Die Funktion des Musculus stapedius beim Menschen. Nach direkten Beobachtungen an der Sehne des M. stapedius beim Lebenden. (The Function of the Stapedius Muscle in Man. From Direct Observations of the Stapedius Tendon in the Living.) E. LÜSCHER. (*Zeitschr. f. Hals-, Nasen- und Ohrenheilk.*, 1929, Vol. xxiii., pp. 106-132.)

The stapedius tendon and its movements could be directly observed with the author's aural microscope (ohrmikroskop) in a suitable case of traumatic perforation of the drum membrane in an otherwise normal ear.

In this manner it was possible to determine definitely the contractions of the stapedius muscle in man. The muscle shows constantly coming cochlear reflexes, which are brought about from equilateral and reciprocal ears nearly with the same intensity. By pure tones the reflex only appeared in a definite tone-range (in the examined individual between 90 and 14,000 vibrations). The tone must have a certain intensity depending on the height of the tone. In light sounds it appears first only as short contractions which with increased intensity of the sound become longer and finally change into continuous tetanus, which ceases only with cessation of the sound. Noises bring about the reflex much more easily than pure tones, so that the ordinary conversational voice 50 cm. from the concha is sufficient to produce it, likewise a very slight blowing noise against the ear, or slight vibration of a low tuning-fork. The reflex, therefore, is especially adapted to the noises of everyday life. It is so sensitive that the muscle must be almost always in activity. The reflex sets in accordingly the more readily as the sound is stronger, higher, and more "noise-like." Mere expectation of a heavy sound also is sufficient to produce the reflex. The expectation must be, in a sense, a so-called "conditioned reflex." Simple voluntary listening does not produce a reflex. The individual was not able to move the stapedius voluntarily. The reflex can be brought about, but only inconstantly, also through sensitive irritation, as, for instance, by pricking the auricle of the ear. On the contrary, contractions of the stapedius do not appear even in strongest voluntary stimulation of the facial nerve or in reflex contractions from the same nerve. From the described properties of the reflex it must be concluded that it is a protective mechanism which automatically comes to activity through cochlear irritation by sounds

or expectation of such and protects the perceptive organ from too strong irritations. The shortening of the stapedius through reflex contraction is very small and amounts to not more than about 1/10 mm. It is therefore almost isometric. The tympanic membrane remains at absolute rest during the contraction. The mechanical action of contraction of the stapedius consists in a fixation of the stapedial footplate. This most likely hinders conductions of sounds, in analogy with corresponding organic fixation, for instance in otosclerosis. In this manner the stapedial reflex accomplishes the postulant protective function. Therefore the stapedial muscle cannot be considered as a "listening muscle." The above results mainly agree with the results of Kato on animals in all points.

AUTHOR'S ABSTRACT.

NOSE AND ACCESSORY SINUSES.

The Prognosis of Operations for Removal of Nasal Polypi in Cases of Asthma. CLEMENT FRANCIS. (*The Practitioner*, October 1929.)

Considerable difficulty arises in determining beforehand the effect that will be produced on a case of asthma by an operation for the removal of nasal polypi.

The two factors to which the author pays special attention are:—

1. The effect produced on the patient's asthma by the administration of aspirin.
2. The height of the patient's systolic blood pressure.

After considering the results in 24 cases, the following conclusions are given:—

(*a*) If the patient can take aspirin, the removal of the polypi will be likely to benefit the asthma.

(*b*) If the patient cannot take aspirin, the removal of the polypi will probably make the asthma worse; except that, in a few cases where the systolic blood pressure is normal or a little raised, the operation may do good or no harm.

(*c*) Extreme care should be taken in prescribing aspirin for asthmatic cases with nasal polypi, and also for nasal polypus cases without asthma, which have a low systolic blood pressure.

(*d*) The type of case in which the prognosis is least hopeful is the patient who has a low systolic blood pressure and who cannot take aspirin. An operation will, in such a case, probably make the asthma worse.

The case-histories of the patients and references to the literature are given.

R. R. SIMPSON.

Larynx

Ethmoiditis in Children. ROUGET and FERRAND. (*Internat. Zentralblatt f. Ohrenheilkunde, etc.*, March 1930.)

The special feature of these infections in children is the comparatively rare association with frontal sinus and maxillary antrum suppuration, and the much more frequent occurrence of orbital swellings. Suppuration is rare unless the infection complicates some zymotic disease. When an abscess forms it should be opened through the orbit, and the ethmoid cells broken down by curetting inwards and downwards into the nose. It is suggested that septic adenoids are the most frequent path of infection to the ethmoid labyrinth in children.

G. WILKINSON.

The Technique of Rhinoplasty. A. A. WETSCHTOMOW. (*Internat. Zentralblatt f. Ohrenheilkunde, etc.*, March 1930.)

The new feature of this operation is the combination of the tube pedicled skin flap with the Tagliocotian operation. The long skin flap was taken from the shoulder, and the arm fixed in relation to the head by plaster bandages, as in the Italian method. A rib cartilage splint was introduced under the skin flap, to give it support.

G. WILKINSON.

Remarks on Unterberger's Views on the Treatment of Ozæna. E. COHN, Königsberg. (*Zeitschrift für Hals-, Nasen- und Ohrenheilkunde*, 1930, Band xxvi., Heft 1, p. 127.)

Cohn objects to the more extensive operations for the inward displacement of the outer walls of the nose, especially in view of the risk of damage to the lacrymal duct. He attributes Unterberger's difficulties to his employing the intra-nasal method of implantation and recommends his own peroral one, using ivory implants. He is of the opinion that it is not merely the physical narrowing of the passage that brings about the good results, but the increased vascularity excited by the foreign body.

JAMES DUNDAS-GRANT.

LARYNX.

Clinical Observations on Acute Forms of Tuberculosis of the Outer Larynx. F. DOBROMYLSKI and B. DASCHEWSKAJA (Moscow). (*Zeitschrift für Hals-, Nasen- und Ohrenheilkunde*, Band xxvi., Heft 1, p. 15.)

In view of the infrequency of primary extrinsic as compared with intrinsic tuberculosis of the larynx, the writers describe several cases in which the disease started in the epiglottis or ary-epiglottic folds. They fell into two groups, those in which the patients were apparently

quite healthy and free from bacilli, and those in which there was already general tuberculosis. Illustrations are given of very extensive involvement of the orifice—epiglottis and ary-epiglottic folds—of the larynx with normal condition of the true vocal cords and ventricles. Voice was unaffected but swallowing was extremely painful. As there was much ulceration of the epiglottis the alcoholic injection of the superior laryngeal nerve was naturally only seldom efficacious because the lingual surface of the epiglottis and the pharyngo-epiglottic fold are only in small part supplied by the nerve in question. The mode of origin is probably not by contact-infection as there may be no sputum or pulmonary signs. It is more likely to be hæmatogenous in view of the special blood-supply of the outer ring of the larynx, namely the superior laryngeal artery, which is quite independent of the circulation in the interior of the organ. The course is apt to be acute.

JAMES DUNDAS-GRANT.

A New and Essential Point in Blocking the Laryngeal Nerve. LAWRENCE SCHLENKER. (*Zent. f. Hals-, Nasen- und Ohrenheilkunde*, 1930, Vol. xv., pp. 697-698.)

Frequent failure to produce alleviation of pain by alcohol injection of the internal laryngeal nerve in laryngeal phthisis has induced the author to revise the technique. He here describes a new method.

The patient is placed in a semi-recumbent position with a cushion in the hollow of the neck to prevent unpleasant over-extension and inclination to swallow. The head is turned to the opposite side. The needle is held between the thumb and index finger of the right hand, while the middle and index fingers of the left hand support the larynx from below, and the thumb marks the place of injection. The needle is inserted midway between the hyoid bone and the thyroid cartilage and driven downwards and backwards to the posterior portion of the upper border of the thyroid cartilage; the needle is now pushed inwards until the thyro-hyoid membrane is felt as an impediment. The needle is now taken in the left hand and the syringe attached with the right. The membrane is now cautiously pricked, as though one were puncturing a piece of paper. The patient is then warned not to swallow, 1 c.cm. of the solution is injected and the needle quickly withdrawn. The patient feels a momentary pain, but after a few minutes the pain in the throat disappears.

If the patient coughs up the solution after injection, it is proof that the mucous membrane has been pierced and a fresh attempt can be made immediately. If, on the other hand, the injection has not been made sufficiently deeply, some days should be allowed to elapse before any further attempt is made, otherwise excessive reaction may be produced.

F. W. WATKYN-THOMAS.

PHARYNX.

Caseous Deposits in the Fossa of Rosenmüller. E. ESCAT, Toulouse. (*Internat. Zentralblatt f. Ohrenheilkunde, etc.*)

This condition is not generally recognised, but the writer believes it to be not infrequent. It gives rise to considerable irritation and discomfort, which the patient attempts to relieve by sniffing and hawking. The collections may be fœtid, when they give rise to subjective cacosmia. There may also be impairment of hearing, dizziness, and headache. The diagnosis is made by posterior rhinoscopy, and the treatment consists of breaking down bridles of more or less fibrous mucous membrane in the fossa, which have given rise to pockets in which the caseous secretion lodges. Escat does this with the finger, under local anæsthesia, a method which calls to mind the manipulations employed by some "osteopaths" in the treatment of deafness. G. WILKINSON.

The "Agranulocytosis" Disease. A Criticism of Case Histories and Personal Clinical Observations. A. M. BROGSITTER and H. Frh. v. KRESS. (*Zent. f. Hals-, Nasen- und Ohrenheilkunde*, 1930, Vol. xv., pp. 706-707.)

The authors, in a long paper (*Virchow's Archiv.*, 1930, cclxxvi., 768-819), discuss fully the question as to whether agranulocytosis should be regarded as a clinical entity. Over a large series of cases with granulocyte deficiency as the common factor, the accompanying manifestations vary widely from the symptom group described by Schultz. Icterus is often absent, anæmia or hæmorrhagic diathesis is often discovered, and in many cases previous history reveals some infective process. In the same patient there may be frequent changes in the blood picture; in other cases an increase in leucocytes and a fall in temperature may accompany recovery. The presence of blood infections with organisms in the blood-stream has definitely been shown to be a cause of the condition.

In conclusion a case is described of oral sepsis; the patient died during the second attack, and at the post-mortem an acute leukæmia was discovered. F. W. WATKYN-THOMAS.

Transition of Agranulocytosis to Myeloblastic Leukæmia. L. BORCHARDT. (*Zent. f. Hals-, Nasen- und Ohrenheilkunde*, 1930, Vol. xv., p. 707.)

The author describes a case of advanced inhibition of granulocyte formation, followed by leukæmia with a total count of nearly 70,000 white cells and 99 per cent. oxydase positive mononuclears. In the agranulocyte stage there was severe anæmia with hæmoglobin

diminution. Between the two phases of the disease was a period of clinical improvement, due perhaps to energetic Salvarsan treatment; but at the same time, it must be considered whether this very treatment may not have been a cause of the second phase of the blood condition.

In both phases there was swelling of the salivary and mammary glands. The patient, a woman of 37, had for about a year recurrences of articular rheumatism. The last illness was an angina, first with pain, and later with the typical necrosis.

F. W. WATKYN-THOMAS.

Agranulocytosis in the Course of Antisyphilitic Treatment. CHARLES AUBERTIN and ROBERT LEVY. (*Zent. f. Hals-, Nasen- und Ohrenheilkunde*, 1930, Vol. xv., p. 707.)

Werner Schultz has described agranulocytosis as itself a definite disease; these authors, on the other hand, after a careful examination of their own cases and a study of the widely varying descriptions of the condition, regard the leukopœnia only as the most striking factor. It is quite possible for other appearances to come more into the foreground whereby the appearance of the condition may be materially altered. This is specially true in the cases where there was present advanced intoxication with arsenic salts, and perhaps with bismuth.

Among luetic cases so treated can be found a whole succession of individual patients demonstrating various conditions corresponding with Schultz's description of the disease; first of all, hæmorrhages, more or less clearly defined anæmias, the greater part of them as a hypopolynucleosis; such cases may be described as agranulocytosis, but 70 per cent. of them are cured as against 16.6 per cent. of the other form.

F. W. WATKYN-THOMAS.

MISCELLANEOUS.

The Influences of Pus upon the Gastric Secretions. K. ASAOKA. (*Zeit. für Oto-Rhino-Laryngologie*, 1928-29, Band xxxiv.)

The effect of pus upon the secretion of gastric juice was studied with six dogs in which gastric fistula and Pavlov's pouch were artificially made. The results of the study, which extend over twenty-eight examinations including those for normal contrasts, were summarised as follows:—

1. A large amount of pus administered into an animal diminishes the amount of gastric secretion, its entire acidity, acidity of free HCl, and quantity of pepsin.

2. A small amount of pus, contrary to the above, exaggerates the secretion of gastric juice and increases the quantity of several elements of the fluid.

3. According to the investigations of the relation between the amount of pus and acidity of combined HCl or muriate salt, they have not any definite relation. The fact, that the acidity of gastric juice diminishes through neutralisation and combination by addition of pus in the examination carried out in the test-tube, is not observed in the animal experiments when a relatively small amount of pus, *i e.* 40 c.c., is used.

4. Dogs given a large amount of pus show dyspepsia, vomiting, diarrhœa, and acute gastro-intestinal disturbances following each administration. They also show for certain days decreased or increased amount of the secretion and its acidity after the last administration.

5. The above results are due to experimental and temporary administration of pus. By these, however, it is easily convincible that the constant flow of purulent fluid into the stomach from the nasal cavity would end not only in the disturbance of gastric secretion, but also in the proliferation of protozoa, as has been reported by Scherer and Zabel, and further in the tissue devastation of the mucous membrane. AUTHOR'S ABSTRACT.

Vivocoll as a Hæmostatic. R. VOGEL, Hamburg. (*Internat. Zentralblatt f. Ohrenheilkunde, etc.*, March 1930.)

Vivocoll (Pearson & Co., Hamburg) is sterilised bovine serum with the addition of fibrine ferment. It is used as a local application and is extremely effective in arresting oozing of blood, and is especially useful in cases of hæmophilia. It is applied directly to the bleeding area on a tampon, or by swabbing, and causes the formation of a firm coagulum. This is confirmed by H. Pfitzner (Berlin) who states that simple spraying of the solution on to the bleeding surface is sufficient.

G. WILKINSON.

Iodine Medication for the Prevention of Goitre. F. DE QUERVAIN, Bern. (*Internationales Zentralblatt für Ohrenheilkunde, etc.*, March 1930.)

The wholesale administration of iodine preparations as a prophylactic measure is not without danger. Its administration in schools should be controlled by medical inspection. In the town of Bern the regular dose given to children (in the form of sweets) is 1 to 3 mg. a week, and no ill consequences have been observed. For the general iodinisation of the community, cooking salt, containing a trace of iodide, is the most practicable method. Some unfavourable reports have appeared in American literature, but here the iodide is used in concentrations 40 to 100 times stronger than in Switzerland.

G. WILKINSON.