ABSTRACTS

EAR

The pathology of Thrombo-phlebitis of the Lateral Sinus. G. TURTUR. (*Bollettino delle Malattie del'Orecchio, della Gola e del Naso*, 1939, lvii, 445.)

The author recalls that the lateral sinus receives blood not only from the longitudinal and straight sinuses but also from four groups of veins. These are

(*a*) The veins of the dura mater.
(*b*) The veins of the diploe.
(*c*) The transtemporal veins.
(*d*) The petrosal sinuses.

The blood of the external and middle ears reaches the sinus through the transtemporal veins, that of the internal ear and petrous bone through the petrosal sinuses.

The author discusses the formation of clots in the sinus and the extent to which they may spread. He describes experiments where the wall of the sinus has been cauterized giving rise to a mural thrombus. Septic material was applied to such a damaged wall and the clot became infected. The septic material was applied to a non-cauterized sinus wall and a clot was produced in about twenty-four hours. In some cases however, pyæmia occurred without the formation of a clot, evidently by the passage of the organisms straight through the wall into the blood stream. The author discusses at length the treatment of thrombosis of the lateral sinus and has concluded that the clot should always be removed but that it is rarely necessary to ligature the internal jugular vein. This manipulation must however be carried out where there is any sign of pyæmic infection.

F. C. ORMEROD.

Some Anatomical Characteristics of the Intrapetrous portion of the Internal Carotid Artery. A. D'AVINO. (*L'Otorinolaringologia Italiana*, 1940, x, 24.)

The author remarks on the fact that in a number of recorded cases where the internal carotid artery has been accidentally wounded during an operation on the petrous bone, the bleeding has been easily controlled by simple packing and that recovery has usually taken place. He remarks that the artery appears to take on the characteristics of a vein.

He has undertaken an anatomical and a histological investigation of the internal carotid artery in its intrapetrous portion. He states that the wall of the vessel is firmly adherent to the bony walls of the carotid canal at its entrance and at its exit. In the adult the arterial wall is not attached to the walls of the canal, itself, in fact there is a space between the artery and the bony wall. The lumen of the canal is greater than that of the vessel in the proportion of 5 to 3. In the fœtus and in the new-born the vessel more nearly fills the canal and is attached to the bone by numerous strands of tissue.

Histologically the thickness of the wall of the artery in its intrapetrous portion is not different from that in other portions of the vessel, but the relative proportions between the various layers of the wall are considerably altered. In the tunica media there are practically no elastic fibres, and they appear to have been replaced by muscle fibres. The tunica adventitia is increased in thickness, and the pericarotid venous plexus is well marked, consisting of vessels and spaces with very thin walls and being incorporated in the tunica adventitia itself. The author suggests that this layer is almost a tunica peri-adventitia.

He considers that from these factors the artery takes on the characters of a vein in the petrous portion of its course. Examination of the vessel in animals especially in the distribution of the elastic tissue lends support to this suggestion of venous characteristics.

F. C. ORMEROD.

NOSE

The relationship between cases of Kerato-conjunctivitis and Nasal Disease. SARGNON and CHAUVIERÉ. (*Les Annales D'Oto-Laryngologie*, August 1939.)

There are many reasons why the study of the clinical relationship between affections of the corneo-conjunctiva and the nose is so complex. One of these is the fact that as treatment by applications to the eyes is obligatory, it is not easy to assess the efficacy of treatment directed to the nasal fossae. Insistence is placed on the great frequency in which there is associated anterior ocular and nasal clinical evidence of disease. Far more frequent, indeed, than similar evidence in cases where the regions of the back of the eye are involved. The authors contend that many cases of kerato-conjunctivitis are allowed to proceed unchecked and to recur because the nose is allowed to go untreated. The close co-operation between the oculist and the rhinologist is essential in order to discover the clinical causes which are often of a complex nature and in order to institute therapeutic measures which will yield the best results.

M. VLASTO.

Abstracts

The act of Nose Blowing and its relations with the physiological functions of the Ears and Paranasal Sinuses. DR. TAPTAS (Istanbul). (*Les Annales D'Oto-laryngologie*, June 1939.)

After discussing the physiological problems associated with normal nasal ventilation and during the act of nose blowing, the author makes the following suggestions in order to avoid morbid conditions of organs situated in the upper respiratory tract :

(1) The nose must be blown by holding the handkerchief beneath the nose without any pressure being made on the latter, and without any muscular contractions. The two nostrils must be entirely open.

(2) After a nasal douche or after taking a bath, the water remaining in the nostrils must again be expelled without any contact between the fingers and the nose.

(3) The expiratory blast during the act of nose blowing induces a negative suction which ventilated the paranasal cavities. If on the other hand pressure is made on the nostrils to control the expiratory blast, this same blast will be forced into the paranasal sinuses with deleterious effect.

M. VLASTO.

The abortive action on Optic Neuritis of Ethmo-sphenoidotomy in cases where the nasal cavities are not the seat of inflammation. ESCAT. (*Annales D'Oto-Laryngologie*, July 1939.)

The author's remarks are based on a series of 32 cases in which 42 operations were carried out. On 10 cases the operation was bilateral. The operation consists in carrying out a middle turbinectomy and breaking down the anterior wall of the sphenoidal sinus on the affected side. In the most favourable cases, vision begins to improve on the day following the operation. How can one account for the excellent results obtained on a physio-pathological basis ? This is the problem to which the greater part of this article is confined. Possible explanations are studied under the following headings : (1) Surgical blood letting. (2) Lymphorrhœa. (3) Reflex therapy. (4) Centrotherapy. Finally the author adduces his own theory to explain the good results that are obtained.

M. VLASTO.

The Surgical Pathology of Nasal Sinusitis. HERMAN SEMENOV. (Los Angeles). (*Jour. A.M.A.*, December 10th, 1939, III, 24.)

In a study of five hundred cases of chronic sinusitis the writer found 48 per cent. were nonallergic, 17 per cent. manifestly allergic, while 35 per cent. showed equivocal allergy.

Mixed infections of two or more organisms occurred in 80 per cent. of the cases. Streptococci predominated in both swabs and

tissue cultures and were present in 95 per cent. Staphylococci were common and appeared in 70 per cent.

The sinus lining is less robust, less vascular and less granular than the schneiderian membrane. The normal sinus membrane is very thin and may be compared to the membrana tympani. The loose subepithelial layer has wide tissue spaces and usually becomes extremely œdematous, often leading to the formation of mesothelial cysts. The glands in the mucous membrane are relatively scarce and the circulation is relatively poor.

Increase in the thickness of the membrane is caused partly by cellular infiltration, partly by œdema of the connective tissue and partly by the proliferation of fibroblasts which give the stroma a myxomatous appearance. Eosinophilic infiltration in the nasal mucosa is present in allergic patients.

Degenerative changes are characterized by retention cysts, mesothelial cysts (including abscesses) and polypoid degeneration. Nonallergic polypi are usually unilateral and removal is followed by better results than removal of allergic polypi, which are usually bilateral. Considerable absorption of bone and osteoporosis accompany polypoid degeneration.

Postoperative repair is brought about by the gradual organization of the blood clot on the denuded osseous wall and the formation of scar tissue. Epithelium spreads from the bordering mucosa and gradually covers the scar tissue. Healing varies from place to place and from person to person and the postoperative membrane is a poor substitute for the original mucous membrane.

A subacute mucopurulent sinusitis often responds to the Proetz displacement method of irrigation and suction. Nonpurulent hyperplastic sinusitis rarely requires surgical intervention. Purulent sinusitis in an allergic individual should be treated simply as a local problem of drainage.

The article is freely illustrated, has four tables and a bibliography.

ANGUS A. CAMPBELL.

Primary Melanoblastoma of the Nasal Cavity. LUCIA NICOLAI and GIANNI SAIBENE. (*Archivio Italiano di Otologia*, 1939, LI, 573.)

The authors record the case of a woman of 74 who had suffered from unilateral nasal obstruction since the age of 61, following an attack of bronchitis. This obstruction gradually increased until the age of 68 when her nose became completely obstructed. At this stage a mass the size of a walnut was removed and it proved on examination to be a melanoblastoma. The patient had, after this operation, a perfect airway and remained quite well until the age of 73 when the obstruction recurred. The tumour had reformed

on the same side of the nose and involved the antrum and the ethmoid labyrinth. The opposite side of the nose was still quite clear. An extensive removal was carried out but death occurred following broncho-pneumonia.

The noteworthy factors in this case are the advanced age of the patient, the slow growth of the tumour and the long period between removal and recurrence.

The extension of the growth into the antrum and the ethmoid mass was effected by gradual absorption of the bone of the maxilla and the ethmoid by pressure atrophy and not by infiltration. Once the tumour mass had perforated a layer of bone by this method its subsequent progress became much more rapid.

The author discusses, at some length and with many references to the literature, the origin of these melanotic tumours and says that the possible origin from mesoblastic tissue and from nervous tissues must be considered as well as the old established theory of epithelial origin.

F. C. ORMEROD.

TONSILS

The treatment of acute Tonsillitis by injections of Bismuth. VITTORINO PESCETTI. (*Archivio Italiano di Otologia*, 1939, LI, 607.)

The author quotes two papers by Monteiro of Rio de Janeiro written in 1933 and 1934 in which he related his method of treating acute infections of the tonsils by intramuscular injections of bismuth. The results are seen very rapidly and the pain and dysphagia usually disappear in from six to eight hours.

This method of treatment has been carried out on a large scale in Professor Ferreri's clinic in Rome since 1934. It is stated that instead of the inflammation reaching its maximum at the end of forty-eight hours, injections achieve a cure in this time, whereas it previously took five to ten days to effect recovery.

Monteiro failed to affect cases of peritonsillitis especially with abscess formation and considered that this was due to the fact that peritonsillar infection was due to the staphylococcus, and that bismuth had no effect on this organism. The author's investigations do not confirm this hypothesis and he has carried out a series of experiments on the bactericidal powers of bismuth. He injected 8 milligrams of colloidal bismuth suspended in two cubic centimetres of water into a series of patients who were about to have tonsillectomy performed. The intervals between the injection and the operation varied from four to twenty-four hours. The tonsils were examined immediately after removal and it was found that those removed up to eight hours after the injection were free of organisms. From nine hours onwards the organisms began to

reappear and at the end of twenty-four hours they were present in normal quantities.

Microscopic examination of the tonsils showed the presence of bismuth in the structure of the tonsil.

The clinical results of the treatment of acute pharyngeal infection by intravenous bismuth therapy have been satisfactory and the actual method by which these ends have been achieved has been demonstrated by the experimental work described in this paper.

F. C. ORMEROD.

PHARYNX

X-ray Treatment of Cancers of the Hypo-pharynx. F. BACLESSE. (*Les Annales D'oto-laryngologie*, May 1939.)

The anatomy of the hypo-pharynx is first described in detail with explanatory diagrams. It is important to distinguish two regions: an upper and a lower. The lower which is deeper and narrower has its external wall formed by the thyroid ala and the internal by the postero-external surface of the arytenoid cartilage. Whereas cancers in the superior region develop in a freer space, are of a proliferative type and invade internally the laryngeal vestibule, those in the inferior region develop in a narrow recess and rapidly infiltrate the surrounding walls (that is to say the arytenoid, the cricoid ring with its muscular covering and externally the thyroid ala: the prognosis in these latter cases is much less favourable.

The precise anatomical site of the growth must be defined before considering the results obtained by this or that form of treatment. How does one recognize to which topographical group the case belongs? In the early cases, this can be established clinically. In the later stages one must enlist the help of antero-posterior and lateral X-rays. The radiographical signs which assist in the differential diagnosis between the two varieties are given. The author then discusses the statistical results of 258 cases treated at the "Fondation Curie" between 1921 and 1935 in Coutard's clinic. Of this number, 27 cases were cured locally and lived for a period of at least 3 years. In all these cases, the growth was situated in the upper region of the hypo-pharynx. Finally we are given a detailed account of the technique employed in treatment by röntgentherapy.

M. VLASTO.

ŒSOPHAGUS

Œsophageal Bleeding caused by Foreign Bodies and attended by difficulties in Diagnosis. J. DANIELEWICZ (Lwow, Poland). (*Monatsschrift für Ohrenheilkunde*, 1939, LXXIII, 121.)

Bleeding from the gullet caused by a foreign body usually comes on immediately after the object is swallowed. The blood is scanty

in amount, originating simply from the surface vessels of the œsophageal wall. Delayed hæmorrhage, which is much rarer, occurs when the foreign body has been present for some time. The object need not be sharp, as it is the constant pressure which gives rise to an ulcer accompanied by chronic inflammatory changes and granulation tissue formation. In such cases the deeper vessels are eroded, and the bleeding can be alarming in amount. Sometimes the presence of a foreign body is not recognized, and the anæmia and dark stools can give rise to the diagnosis of gastric ulcer.

An interesting case was that of an insane person who swallowed some pieces of broken mirror, several days before admission to hospital. There was dysphagia and considerable spitting of blood. Œsophagoscopy revealed a splinter of glass firmly wedged in the upper end of the gullet. Foreign body forceps would not grip the smooth surface until their jaws were covered with pieces of rubber tubing. Removal was then easy, and recovery uneventful.

The second case was that of a woman, who, six weeks previously, experienced pain in the throat after eating stew. She became very pale and weak and complained of giddiness and tinnitus. On one occasion she noticed that her stools were black.

X-ray examination revealed no foreign body, and contrast medium passed readily into the stomach. She was admitted to the medical ward and treated with diet presumably as a case of gastric ulcer. A sudden severe bleeding from the mouth brought the red cell count down to 1,000,000. Œsophagoscopy was performed and a piece of bone with fairly smooth edges found at the level of the seventh cervical vertebra. When the bone was removed, an ulcer was revealed which bled freely. Application of cocaine and adrenaline caused hæmostasis, and after a stormy convalescence, the patient recovered.

DEREK BROWN KELLY.

MISCELLANEOUS

Cephalostatic Nystagmus and its importance for the Professional Selection of Aviators. L. L. FROOMIN (Charkow). *Jurnal ushnikh, nosovikh i gorlovikh bolesnej* (*Journal of Otology, Rhinology and Laryngology*, Russian), 1939, XVI, 2.)

Vegetative reactions (nausea, vertigo, vomiting, etc.), threatening air-pilots and often responsible for accidents, cannot always be suppressed or diminished by training.

Looking for an objective indication for this resistance to training the author discovered it in the so-called cephalostatic nystagmus

(Borries), i.e. spontaneous horizontal nystagmus during and after a slow inclination of the head.

In all cases presenting this nystagmus there is no hope of lowering the vegetative reflexes either by prolonged exercises in special training apparatus or by flying practice. The author advises, therefore, such recruits to be excluded *a priori* from the service.

A. I. CEMACH.

Training in the Pressure-Chamber to Altitude Flights and its Influence on the Function of the Ear. I. J. BORSTCHEVSKI (Moscow). (*Jurnal ushnikh, nosovikh i gorlovikh bolesnej* (*Journal of Otology, Rhinology and Laryngology*), Russian, 1939, XVI, 1).

In the Pavlov Institute of Aviational Medicine in Moscow pressure-chambers reproducing the principal characteristics of the upper atmosphere and their changes during the flight are used for the training of military air pilots, rendering them " acclimatized " to the atmospheric conditions of high altitudes.

The normal action of the Eustachian tubes is the prime condition for maintaining an effective self-regulation of the air pressure in the middle ear, in the chamber as much as during a flight. Before entering the chamber, therefore, the trainee must undergo an investigation of his tubes, which is best procured by the manometric test. Persons with advanced obstructions of the tubes must not be subjected to training in the pressure-chamber as they are liable to considerable discomfort or even to grave disturbances of the ears. On the other hand, even large perforations or cicatrices of the tympanic membrane need not exclude a trainee as long as his tubes prove equal to their task.

In the early days of training congestion of the drum is often observed ; in such cases the training has to be interrupted. These hyperæmic reactions can be eliminated, however, if the conditions of ascent and dive are produced with due caution. The chamber-training is regarded, therefore, as a commendable means of improving the ability of airmen to tolerate the strain of high flights.

A. I. CEMACH.

Some Neurological Syndromes noted by the Laryngologist. W. RACINE. (*Les Annales D'Oto-laryngologie*, May 1939.)

It often occurs that a cerebral lesion finds its clinical expression in the domain of the oto-laryngologist. It is he who has to define its localization and understand the cause. The author brings to notice three cases of this nature and discusses them in detail. The first is a case of facial palsy and external rectus paresis coming on 6 days after a radical mastoid operation performed for a cholesteatoma. The various possible causes of these pareses is discussed and the diagnosis finally reached is that of an embolus in

the region of the eminentia teres at the point where the VIIth nerve fibres come in contact with the nucleus of the VIth nerve. The next case is one of paresis of one half of the tongue, combined with paresis of the orbicularis oris on the same side. The author concludes that the case is one of nuclear palsy of the XIIth nerve and confirms the hypothesis that there is a nerve communication between the facial nerve and the XIIth nucleus. The last case is one in which the patient was unable to move his eyes to the right, a spontaneous nystagmus towards the right and the impossibility of provoking an induced nystagmus towards the left. It is shown that the lesion is in the supranuclear paths going to the occular nuclei after their crossing at the level of the left posterior longitudinal bundle.

M. VLASTO.

Allergy of the Upper Respiratory Tract in Infancy and Childhood. GEORGE PINESS and HYMAN MILLER (Los Angeles). (*Jour. A.M.A.*, August 26th, 1939, cxiii, 9.)

Fourteen years ago the writers wrote a paper entitled " Allergy : A Non-surgical Disease of the Nose and Throat ". Since the signs and symptoms of allergy are still commonly confused with those of infection the writers feel themselves impelled again to discuss the same topic.

Allergy alone may produce " frequent colds ", persistent sore throats unrelated to tonsillitis, and stuffy ears unrelated to pharyngitis. Allergy alone may produce a chronic or intermittent cough, without infection of the bronchi and without wheezing or dyspnœa and may produce recurrent broncho-pneumonia with fever and leukocytosis without wheezing and without pneumococci. Lymphoid hyperplasia is one of the distinctive features of allergy.

Although treatment of the allergic process may aid the healing of an accompanying infection, treatment of the infection alone can never clear up the underlying allergy. Experience does not justify the removal of tonsils for the relief of allergic symptoms.

ANGUS A. CAMPBELL.

Multiple Intracranial Tumours. W. JAMES GARDNER (Cleveland) and OSCAR A. TURNER (New Haven, Conn.). (*Jour. A.M.A.*, July 8th, 1939, cxiii, 2.)

It has been recognized for some time that a relationship exists between meningeal growths and those tumours which arise from the nerve sheaths or their components. Central neurofibromatosis is also hereditary in that form of the disease and may be transmitted as a dominant trait with little or none of the peripheral manifestations of the disorder. A special variety of central neurofibromatosis (bilateral acoustic tumours) has been established on a

familial and hereditary basis. The tendency of acoustic nerves to be involved in central neurofibromatosis has been noted and in most reported instances, unilateral or bilateral acoustic tumours were present as part of the diffuse involvement of the cranial nerve sheaths by their specific tumours. Unilateral acoustic tumours are relatively common, and as far as can be determined at the present time, bear no relationship to central neurofibromatosis (von Recklinghausen's disease).

A case is briefly reported as an example of the association of a unilateral acoustic tumour with a meningeal growth in which central neurofibromatosis played no apparent part.

ANGUS A. CAMPBELL.

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