ABSTRACTS

EAR

The Surgical Treatment of Otosclerosis. WALTER HOWARTH. (*St. Thomas's Hospital Reports*, ii, 1937.)

It has been known for some years that an immediate and notable improvement in hearing occurs in cases of otosclerosis when a fistula leading to the labyrinth is produced. The improvement is of very short duration, as the fistula tends to close rapidly.

Holmgren, the pioneer in this operation, has tried many modifications of his original technique since 1920 and has reported thirteen cases, in eleven of which some hearing was regained. Briefly stated, the procedure consists in the exposure of the external semi-circular canal, the removal of bone so as to expose the membranous labyrinth and the application of gold leaf to prevent the fistula from closing.

The technique introduced by Sourdille in 1924 is more elaborate and is carried out in three stages, but in this operation also, success depends upon the permanency of the fistula. Howarth, following the Holmgren technique, has operated on seven patients, in all cases under local anæsthesia. In each instance the immediate improvement was astonishing but in five of the seven cases the hearing rapidly deteriorated, until after six weeks it was little better than before the operation, although in no case was it any worse. The other two cases promised well, but in each of them, after a lapse of several weeks, there was a sudden attack of giddiness and almost complete loss of hearing. It is difficult to explain this phenomenon, which had not been observed in any of Holmgren's cases.

Howarth has more recently operated on another case, adopting a two-stage technique. The first operation consisted of a modified radical mastoid operation with the application of a thin Thiersch graft to the entire cavity. Six weeks later, the wound was reopened, an epithelial flap was dissected up from the external semi-circular canal, a fistula was made in the canal and the flap was replaced. It is as yet too early to comment upon the result. The writer hopes that further improvement in technique may enable the operator to maintain the patency of the fistula and thus secure a lasting benefit to hearing.

DOUGLAS GUTHRIE.

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Abstracts

Four Cases of Otitic Meningitis (three streptococcal, one pneumococcal mucosus) treated by Sulphonilamide. CAMILLE HUBERT. Revue de Laryn. d'Otol. et de Rhin. (April, 1938.)

Four very full case reports of otitic meningitis cured by operative treatment of the mastoid focus followed by sulphonilamide given by mouth and intrathecal injection. In all cases organisms were grown from the cerebrospinal fluid.

This article gives reports in each case of frequent examinations of the blood and cerebrospinal fluid, including the percentage of sulphonilamide present in the latter.

The author is convinced of the efficiency of sulphonilamide, as in thirty years he had observed one recovery only in a case with organisms in the cerebrospinal fluid.

C. GILL-CAREY.

Otitis Media and Vitamin C. M. BAER. Revue de Laryn. d'Otol. et de Rhin. (February, 1938.)

In a group of fifteen cases of otitis media in which the infection was not progressing towards recovery (in spite of the absence of adenoids, nasal infection or a mastoid focus) testing the urine showed an insufficiency of Vitamin C.

While admitting the difficulty of estimating the value of any treatment in a disease so variable as otitis media, the author is convinced that Vitamin C therapy hastened resolution of the ear suppuration and at the same time produced a rapid improvement in general health.

C. GILL-CAREY.

Severe Initial Deafness as a Sign of Acute Mastoiditis. N. ASHERSON. (*Lancet*, 1938, ii, 946.)

The author relates three cases of acute mastoiditis in which severe deafness at the onset was a prominent symptom. He considers the symptomatology of this type to be characteristic. The patient develops an acute otitis media which is revealed to be suppurative. Coinciding with, or following, or, as in his second case, preceding it by some days, there is severe deafness. In all of his three cases there was extensive disease, with a large collection of pus at the tip of the mastoid. Recovery of hearing after draining was gradual. In the first case, a woman aged 33, the severe deafness alone, in the presence of an acute suppurative otitis media, was the only physical sign of extensive mastoid suppuration. In the second case, a man of 30, there was also extensive suppuration in a pneumatic mastoid. In the third case, a man of 54 the severity of the deafness on the first visit overshadowed all the other symptoms, and operation was delayed for many days.

MACLEOD YEARSLEY.

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Ear

Hearing Aids from Otologists' Audiograms. AUSTIN A. HAYDEN, M.D. (Chicago). (*Jour. A.M.A.*, August 13th, 1938, iii, 7.)

The portable carbon transmitter type of hearing aid is a complex scientific instrument of considerable precision. With the use of various combinations, 288 different hearing aids can be assembled, each designed to correct a certain degree of hearing loss at a definite location in the hearing range. This is known as selective amplification. The attention of patient, otologist and manufacturer should be centred on the tones of ordinary conversation which lie between 256 and 2,500 cycles per second.

The fundamental tone audiometer is a vacuum tube instrument that produces pure tones within certain limits and does the work of tuning forks with greater ease, accuracy and speed.

The audiogram is the best means of recording hearing loss, for the diagnosis of otologic disease, fitting of hearing aids and medico-legal purposes.

Three hundred audiograms have been studied and " matched " and the component hearing aid parts assembled in the audioscope (a master hearing aid), according to the otologists prescription. These " trial frame " fittings have been checked by speech intelligibility tests, by subsequent audiograms of the patient wearing the assembled hearing aid, or both. The results were surprisingly accurate. In every instance the audiogram was invaluable in reducing the time and fatigue of fitting. The writer feels that otologists must take greater interest in the audiometer and hearing aids or else the use of the former and the prescription of the latter will be taken over by others not so well qualified to serve the hard of hearing.

ANGUS A. CAMPBELL.

Syphilitic Infections of the Ear. J. FULTON CHRISTIE (Glasgow). (*The Medical Press and Circular*, October 19th, 1938, 5,189.)

Syphilis rarely affects the external or middle ear. Middle-ear suppuration in a syphilitic subject may cause rapid destruction of tissue, with involvement of the labyrinth and facial nerve. The inner ear, however, is the part most frequently affected in acquired or inherited syphilis. When a young adult complains of a profound degree of deafness, with or without giddiness at first, the most probable cause is syphilis, especially if the onset has been sudden and the progress rapid. In the acquired form the ear may be involved early, even before the primary chancre has disappeared, but as a rule the time of onset is towards the end of the so-called secondary stage. One or both ears may be affected and the disease is rapidly progressive. The deafness and tinnitus may be accompanied by giddiness, nausea, and nystagmus, or may be the only signs. In the inherited form both ears are affected, and the deafness

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appears suddenly, sometimes along with severe vertigo. The time of its appearance, like that of interstitial keratitis, is between the ages of 7 and 16 years. Unless treatment is commenced at once severe deafness results, and unfortunately the child is seldom brought for advice until the hearing has been irreparably lost.

DOUGLAS GUTHRIE.

NOSE AND ACCESSORY SINUSES

Choanal Atresia. Septal Operation by von Eicken's Method. H. MARSCHIK. (*Trans. Vienna lar-rhinol. Soc. Monatsschrift für Ohrenheilkunde*, 1938, lxxii, 913.)

The early methods of operating on cases of choanal atresia were unsatisfactory. Removal of the obstructing partition by means of chisel and forceps left a circular wound with rough irregular edges. This gave rise to a ring of granulation tissue which slowly but surely contracted (despite post-operative bouginage) until atresia re-established itself.

A great advance in technique is to cover this wound with mucous membrane. By carefully elevating and preserving the mucosa covering the bony occlusion, flaps can be formed which are placed over the raw area and retained in position by means of packing. The operation is carried out in a manner similar to that for submucous resection of the septum.

After removal of the obstructing plate, the posterior edge of the septum may be left in position, thus preserving a normal choana, or it may be removed. The latter method minimizes the risk of post-operative narrowing.

In the case demonstrated, the posterior edge of the septum was left in position, and an excellent result obtained.

DEREK BROWN KELLY.

Osteoma of Frontal Sinus and penetration of Lateral Ventricle, with Intermittent Pneumocephalus. ELDRIDGE H. CAMPBELL, M.D. and R. B. GOTTSCHALK, A.B. (Albany, N.Y.) (*Jour. A.M.A.*, July 16th, 1938, iii, 3.)

The writers agree with Cushing, Hoover and Horrax that orbito-ethmoidal osteomas have so many vagaries that it is advisable to remove them through an intracranial approach. To deal adequately with the growth and its associated mucocele, if present, and securely to repair the dural opening, should one be found, an osteoplastic craniotomy is essential. The incision may be placed entirely within the hairline and no scar or deformity need result.

The authors report in detail the case of a young man, aged 26 who came complaining of generalized headache, convulsive attacks and a noise " like running water " in his head. With the stethoscope

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this sound was plainly audible in the temporal region. No external bony deformity of the skull was found and the left eyeball was not protruded or rotated. The diagnosis of an osteoma of the left frontal sinus was made by X-ray. A subsequent X-ray taken in the lateral position revealed air in the lateral ventricles. The bony tumour was exposed through a left sided frontal osteoplastic craniotomy and removed piecemeal with chisel and gauge. The lateral portion of the sinus was filled with a glistening lobulated mucocele with an extension through the dura into the anterior horn of the left lateral ventricle. The mucocele was removed and the defect in the dura repaired with a small patch of temporal fascia. The convalescence was uneventful and the patient has had no return of symptoms for fifteen months. ANGUS A. CAMPBELL.

Fronto-Ethmoido-Maxillary Osteoma. Prof. VAN DEN-WILDENBERG. (*Annales D'Oto-Laryngologie*, June, 1938.)

Although reports have frequently been published of osteomata invading the paranasal sinuses, it is unusual for them to invade the nasal cavity. In the present case, however, the osteoma gave rise to total obstruction of the nasal airway and complete anosmia. The patient was a man of 48 who suffered from a gradually increasing nasal obstruction of ten years' duration. There was also a downward and outward displacement of the left eye. Apart from a feeling of heaviness of the head, there were no other symptoms. The diagnosis was confirmed by radiography. These osteomata should be operated upon as soon as they are diagnosed. They are difficult to remove because they are ivory-like in consistence and cannot be divided ; their attachment to the dura adds a risk to the operation. In the present instance, the tumour was exposed by a wide incision through the left eyebrow, and carried on to the side of the nose. By careful blows with the gouge, the growth was detached from the antrum, the frontal sinus and from the ethmoid. It was found to be attached to the dura over an area of the size of a florin but the separation in the present case was easy and there was no escape of cerebrospinal fluid. The weight of the osteoma was 100 grammes.

M. VLASTO.

Experimental Studies on the Etiology of Septum Variations. K. KURATA (Osaka). (*Monatsschrift für Ohrenheilkunde*, 1938, lxxii, 894.)

The human nasal septum is found to lie vertically in the mid-line in only one quarter of the cases examined. Usually it is deviated to one side to a greater or lesser degree.

There are many theories as to the causation of these septal deviations, but little experimental work has been done on the subject.

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Abstracts

The author has carried out investigations on animals (rabbits, rats, and guinea-pigs) whose septa are invariably situated vertically in the mid-line. The following results may be noted :

In guinea-pigs, mechanical pressure on the nose frequently produces a septal deviation, but only in a mild degree. A blow or strong pressure on the nose may cause a direct fracture of bone or cartilage, but in the majority of cases the septal deformity appears gradually with the growth of the body.

A to D avitaminosis produces deviation in rats, and food deficient in Vitamin C has a similar result in guinea-pigs.

If one side of a rabbit's nose is closed, either by stitching the nostril or by posterior plugging, a septal deflection to the occluded side takes place. The application of tincture of iodine and other chemicals has a similar effect.

Conchotomy and removal of the mucosa covering the septum on one side results in severe deviation of the septum to that side. Turbinal hypertrophy takes place on the more patent side, while the turbinate on the narrow side is pressed outwards by the deviation. The author therefore believes that septal deviation is primary, the turbinals adapting themselves to altered circumstances. Nasal obstruction in childhood due to chronic rhinitis, enlarged tonsils and adenoids plays a rôle in the formation of a septal deviation. Rickets and nutritional disturbances must also be taken into account.

DEREK BROWN KELLY.

PHARYNX

Prophylactic treatment of certain Post-operative Complications. HENRI LEWENFISZ. Revue de Laryn. d'Otol. et de Rhin. (February, 1938.)

The author has found that infection of the tonsil beds shown generally by dysphagia, pyrexia and locally by œdema, and frankly purulent sloughs can be prevented by a prophylactic injection of acetylarsan on the day of operation. No cases of secondary infection of the tonsil beds have been seen in the last two years since this method has been adopted.

Similar good results in preventing tonsillitis after nasal operations were obtained.

The good results can be attributed to the bactericidal properties of organic arsenic compounds, and in particular to their action on spirillae and fusiform bacilli. C. GILL-CAREY.

An Unusual Case of a Foreign Body in the Cavum Oris demonstrated by Tomography. G. CANUYT and GUNSETT. (*Les Annales D'Oto-laryngologie,* August, 1938.)

The article relates to a case of a foreign body in the mouth of a child of 7 which gave a normal radiogram and yet was plainly

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visible in a tomogram. A right nasal obstruction had been wrongly ascribed to a pad of adenoids and tonsils and adenoids had been removed. As the condition persisted and there was a right purulent and sanguineous nasal discharge, a diagnosis of tumour was made. It was at this stage that the child came under the notice of the authors. Although nothing abnormal was seen in the right nasal fossa, there appeared to be a slight protrusion of the soft palate on the right side. Digital examination confirmed the presence of a semi-solid mass in the right naso-pharynx. As mentioned above, radiography was negative. The published photographs of the tomograms, however, reveal the presence of an ovoid mass in the naso-pharyngeal region. It was found to be the rubber extremity of an arrow which had been shot into the mouth by a playmate some time before the development of symptoms.

M. VLASTO.

Medical Complications of Tonsillar Infections. R. DUPÉRIÉ. Revue de Laryn. d'Otol. et de Rhin. (April, 1938.)

The author discusses three aspects of the subject.

1. The tonsils as the portal of entry in infectious and contagious diseases. In this portion the known facts in relationship to initial throat infection, in scarlet fever, acute rheumatism, measles, poliomyelitis, diphtheria, and cerebrospinal fevers, are reviewed.

2. The rôle of the tonsils in focal infection. Chronic tonsillar infection may give rise to ill-defined general symptoms such as depression, mild digestive disorders or to disease of any one of the great systems of the body. In particular the author feels that tonsillar infection is important in enteritis of infants, in appendicitis and acute nephritis in children.

Fifteen to twenty per cent. of cases of infective arthritis are of tonsillar origin, but there appears to be no relationship in the case of osteo-arthritis.

3. Septicæmia of tonsillar origin. Those of aerobic origin; mainly due to the streptococcus viridans or hæmolyticus under the form of either a septicæmia or pyæmia. In the latter localization may be articular, meningeal or vascular, but the most important are endocardial lesions. Those due to anaerobic organisms. The typical septicæmia of this group is that due to B. Fondutiformis, which is described in detail. Briefly this infection attacks young subjects or occurs in small epidemics, often attributed to bathing pool infection.

Three stages are present:

(*a*) A mild tonsillitis.

(*b*) Stage of dissemination ushered in with a rigor; frequently associated with pleuritic pain. Blood cultures in anaerobic cultures are positive.

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(*c*) Stage of septicæmia with irregular pyrexia ; rigors, and the general signs of severe infection, frequently of pulmonary infection. The mortality is high. C. GILL-CAREY.

LARYNX

The Value of Radiography in Cancer of the Larynx. P. REGULES and N. L. CAUBARRERE. (*Anales de Oto-Rino-Laringologia del Uruguay*, 1938, vii, 2.)

In this lengthy paper, clearly illustrated by 76 figures and radiograms, the author discusses the advantages of radiography in the diagnosis of cancer of the larynx. The upper part of the larynx is best delineated by a lateral projection, the lower part by the method of tomography.

The lateral view indicates the extent of the growth and enables one to decide whether an extended or a limited laryngectomy should be carried out. Tomography reveals more clearly than any other diagnostic method, the size, form and extent of subglottic cancer. When the growth is limited to one vocal cord, this method reveals the extent of invasion of the ventricle and indicates whether laryngo-fissure or radiotherapy is the better means of treatment.

DOUGLAS GUTHRIE.

The prognostic Value of the Sedimentation Test when treating Laryngeal Tuberculosis by the Galvano-cautery. PREDESCU-RION (Budapest). (*Les Annales D'Oto-laryngologie*, August, 1938.)

The experience of the last twenty-five years has taught us that in the galvano-cautery, we have the best form of treatment for laryngeal tuberculosis. But as in the case of other active treatments its use requires caution. Although many successful results are on record, there are others which have been disastrous and have converted enthusiasm into despair. Although it can be assumed that laryngeal tubercle is always associated with pulmonary tuberculosis, it is recognized clinically that certain cases of laryngeal tuberculosis run their course quite independently of the lung condition. For instance, the diseased larynx may heal when the lung condition is very advanced, and *vice versa*. On the whole, however, one can regard the laryngeal picture as a mirror of the condition of the lung or rather of the general state of the patient. In order to lessen the possible catastrophes following galvano-cauterization, the author availed himself of the evidence afforded by the " sedimentation test " as a control. The relative speed of the sedimentation of the red cells of the blood is a criterion of tissue destruction. We are next given details as to how this test should be carried out. The practical value of the test is demonstrated by the presentation of the clinical histories of a number of cases which were treated with the galvano-cautery under its control.

M. VLASTO.

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Miscellaneous

Cancer of the Larynx. H. B. ORTON (Newark, N.J.). (*Archives of Oto-laryngology*, August, 1938, xxviii, 2.)

The writer tabulates the immediate and ultimate results of operation in 102 cases. Laryngectomy was performed in ninety-four cases and laryngo-fissure in eight cases. Ninety-one patients were men and eleven were women. Eleven patients were under 40 years of age. Three patients had undergone prolonged treatment for papilloma which eventually became malignant. In seventy-seven cases (75 per cent.) the cancer originated within the larynx. Of those cases, eight underwent laryngo-fissure and six of them are alive and well, at periods of ten to eighteen years after operation. There were fifteen cases of subglottic cancer and for this type the writer prefers total laryngectomy, as there is a marked tendency to metastases or to recurrence. The growth usually originates in the anterior third, below the cords, and may involve a large area before it is recognized. The so-called extrinsic cancer, like the subglottic and intrinsic varieties, is usually of the squamous type, but it may be papillary or basal celled. Glands are involved early and the course is fairly rapid. There were twenty-three cases in the present series and in only two of them was the post-cricoid region involved.

The symptoms naturally varied according to the site of the lesion. Hoarseness was present in eighty-nine cases and cough in fifty-nine cases. Pain was next in frequency among symptoms (forty-five cases), twenty-nine patients complained of dyspnœa and twenty-five of dysphagia; thirty-nine patients had lost weight, although this is usually regarded as a late sign. Fixation or sluggish movement of a vocal cord is a misleading symptom and is by no means invariable.

The writer describes the technique of laryngectomy in his ninety-four cases, of which fifty-seven are alive and well after varying periods. Five patients died within three weeks of operation, nine died from causes other than cancer (mostly after several years) and twenty-three had recurrence. Laryngectomy is not a mutilating operation; the patients have not been despondent and each has acquired a useful pharyngeal voice.

The paper is illustrated by seven tables and forty figures, including twelve excellent microphotographs.

DOUGLAS GUTHRIE.

MISCELLANEOUS

A study of the Upper Respiratory Tract in Bakers. A. RADZYMINSKI. (February, 1938.)

The author examined 197 bakers immediately after five and eight hours' work. He came to the following conclusions:

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1. A normal nose protected other parts of the respiratory tract from penetration by flour.

2. The flour produced a chronic rhinitis, generally hypertrophic.

3. Mouth breathers suffered from pharyngitis and laryngitis.

4. It is possible that a large number of malignant tumours of the larynx found in bakers may be due to the irritant action of the flour when the protective action of the nose is absent.

C. GILL-CAREY.

Hereditary Multiple Telangiectasis with Epistaxis. GEORGE HUNTER O'KANE, M.D., Med. Sc.D. (New York). (*Jour. A.M.A.*, July 16th, 1938, iii, 3.)

This disease is a syndrome in which the capillaries and venules become dilated. On microscopic investigation these dilated vessels are found to have a single layer of endothelial cells covered by a very thin epithelium. These vessels bleed profusely on the slightest trauma. Telangiectasis may occur anywhere in the skin or mucous membranes and may give rise to internal bleeding. The disease, unlike hæmophilia, may be transmitted by either sex and may affect male or female. The bleeding and coagulation time are normal.

The diagnosis depends on three factors:

1. A history of repeated hæmorrhages.
2. A history of familial occurrence.
3. Telangiectatic lesions in the skin or mucous membranes.

The writer reports the case of a man, aged 71, who gave a history of frequent nosebleeds since childhood. His father also suffered from frequent and severe epistaxis. When he was 43 the bleeding increased in severity and frequency so that he sought medical advice and, within a few years, had nine intra-nasal operations without relief. A short time later, while receiving radium treatment the epistaxis was very severe and required transfusion. Later when seen by the writer, electrocoagulation and radium failed to obliterate the lesions. Repeated submucous injections of a 5 per cent. solution of quinine and urethane were injected alongside the vessels with the gradual disappearance of all the lesions. During the past two years he has been almost free entirely from epistaxis. Alcohol, tobacco and coffee have been forbidden during the treatment.

ANGUS A. CAMPBELL.

Cold Vaccines. H. S. DIEHL, M.D., A. B. BAKER, M.D., and D. W. COWAN, M. D. (Minneapolis). (*Jour. A.M.A.*, September 24th, 1938, iii, 13.)

The study here reported extended over a period of three years and included work with one vaccine administered subcutaneously

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and two administered orally. Two hundred and seventy-two University students in the vaccinated group and two hundred and twenty-six in the control group completed the study. The students in the control group were treated exactly the same way as those in the experimental group but received placebos instead of vaccine. The vaccine selected for this study was standardized according to the milligrams of nitrogen per cubic centimeter, as follows: pneumococcus 0·015 mg., streptococcus 0·015 mg., bacillus influenzae 0·01 mg., micrococcus catarrhalis 0·0025 mg. and staphylococcus 0·0075 mg. The vaccine was administered hypodermically to the experimental group as follows: 0·5 c.c. twice a week for three weeks and then 0·5 c.c. every two weeks during the fall, winter and spring.

The group which received vaccine subcutaneously experienced an average of 25 per cent. less colds per person than did the control group. The writers feel that this reduction is not sufficiently great to justify the time and expense involved.

The group which received polyvalent vaccine orally experienced just as many colds as the control group.

There was no evidence from this study that vaccine reduced the complications of colds or that the condition of the nose and throat is related to the frequency of colds in a cold-susceptible group.

ANGUS A. CAMPBELL.

OBITUARY

PATRICK WATSON-WILLIAMS

THE passing of our confrère in his seventy-eighth year has removed one of the few remaining British laryngologists who commenced their professional life as general practitioners. After three years thus engaged, he became House-Physician to the Bristol Royal Infirmary, Assistant Physician in 1888, a full member of its staff in 1905, and the following year took charge of the newly created Throat Department. But during the first appointment (1888) he must have concentrated his attention on what was to be his special practice, because in 1892 he published the first edition (of four) of *Diseases of the Upper Respiratory Tract*, which the younger generations of Rhino-laryngologists might still read with profit. The same advice would apply to all his contributions relating to diseases of the nose and throat, because he possessed that enviable faculty of condensing in a few paragraphs all that he had learned of the subject at issue, without blurring its general perspective which was based on the sure foundations of general medicine. In 1908, he was invited to deliver the "Long Fox" lecture, which annually perpetuates the name of his father-in-law, who was an alumnus of

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