ABSTRACTS

EAR

The Fenestration Operation for Otosclerosis. GEORGE E. SHAMBAUGH, JR., M.D. *Jour. A.M.A.*, April 13th, 1946, CXXX, 15, 999.

Experimental studies on the fenestration operation in the monkey indicate that the following factors govern osteogenesis tending to close the fistula:

1. The sluggish response to trauma of the enchondral layer of the labyrinth capsule.
2. The inhibiting effect of stratified squamous epithelium on osteogenesis.
3. The stimulating effect of bone dust and fragments on osteogenesis.
4. The stimulating effect on osteogenesis of trauma to the endosteum within the labyrinth.
5. The inhibiting effect on osteogenesis of a smooth polished bone surface.
6. The tendency of the intact membranous labyrinth closely adherent to the skin flap to hold the mouth of the fistula open.

To overcome bone dust fragments the author devised a simple irrigating apparatus to wash away every particle of bone dust. To make doubly sure of this he makes use of a binocular microscope. This microscope gives adequate magnification and is helpful in making sure of complete removal of the endosteum over the mouth of the fistula. The ideal fistula is covered with the thinnest possible skin flap and is closely adherent to the bony margins.

On the clinical side, the writer discusses his results on 930 fenestration operations performed during the past $7\frac{1}{2}$ years. There were no fatalities in this series, but two cases developed serious facial nerve paralysis. The pre-operative hearing level is the average of three or four hearing tests taken on different days before the operation. The frequencies used are 512, 1,024, and 2,048 cycles. The post-operative results are expressed in terms of decibels gained or lost from the pre-operative average. Audiometric tests were made every few months for the first year and once a year thereafter. Hearing improvement was lost in 53, re-operation was carried out in 30 of these and in every instance the hearing loss was found to be due to new bone closing the fistula, although the fistula test remained positive in some instances. A patient who maintains his hearing improvement for more than one year after the operation, is likely to retain it, while he who maintains his improvement for more than two years, will almost certainly keep it permanently. The functional patency of the fistula to sound can be judged by the hearing improvement by audiometric tests. The average gain for the 88% who maintained their maximum hearing improvement for more than two years is 28·9 decibels.

This article occupies 14 columns, is illustrated and has a bibliography.

ANGUS A. CAMPBELL.

Bronchi

Histopathology of the Incus and the Head of the Malleus in Cases of Stapedial Ankylosis. JULIUS LEMPERT AND DOROTHY WOLFF (New York). *Arch. Otolaryng.*, 1945, xlii, 5, 339-367.

This investigation embraces a series of microscopic observations made on specimens removed from 115 ears of living patients. The Incus and a portion of the Malleus were routinely removed in the performance of the fenestra nov-ovalis operation in clinical otosclerosis.

A complete absence of pathological changes was reported in only five specimens. The changes may represent one or more of the following conditions: (1) pathologic change that is part of stapedial ankylosis, (2) alterations consequent to the disease, (3) unrelated pathologic involvement.

The abnormalities commonly observed were: 1. Irregular bony contours and fibrotic replacement of bone. 2. Blue mantles. 3. Changes in the marrow spaces, which include—(*a*) tortuosity of vessels, (*b*) venous stasis, (*c*) arterial congestion, (*d*) periarteritis, (*e*) endarteritis, and (*f*) osteoporosis. 4. Pathologic changes in the ossicular joints.

In no instance did the ossicles exhibit otosclerotic foci such as are seen in the region of the oval window.

It is considered highly probable that in the large percentage of the pathologic ossicles, the changes are, in part at least, degenerative changes arising from disuse engendered by ankylosis of the stapes.

The article is profusely illustrated (27 figures).

R. B. LUMSDEN.

BRONCHI

Bronchogenic Carcinoma. PETER A. HERBUT, M.D., AND LOUIS H. CLERF, M.D. (Philadelphia). *Jour. A.M.A.*, April 13th, 1946, cxxx, 15, 1006.

Bronchoscopy is undoubtedly the best single procedure for diagnosing lesions present in the trachea, main bronchi or their immediate subdivisions, but is of little positive value in diagnosing the more peripheral neoplasms. Examination of bronchial secretions for cancer cells is an important adjunct to this method of examination. Rarely can the diagnosis be made from a study of the cytology of the sputum. Only those secretions which come from the region of the suspected tumor are likely to be positive. These secretions can be aspirated during bronchoscopy and sent to the laboratory for study. Considerable experience is necessary on the part of the pathologist to stain and recognize malignant cells. In 30 cases of primary pulmonary carcinoma, bronchial secretions were positive in 22 cases. Cancer cells were present in the secretions from 7 cases in which bronchoscopy was negative.

The article occupies 12 columns, is illustrated and has a bibliography.

ANGUS A. CAMPBELL.

LARYNX

Sulphanilamide Spray for Pain in Tuberculous Laryngitis. MERVIN C. MYERSON, M.D. (New York). *Jour. A.M.A.*, April 14th, 1946, 1014.

The writer has treated sixty patients by this method. The sulphanilamide used in each application of the spray weighs between 5 and 10 grains. The powder is sprayed into the larynx with a powder atomizer. Patients having

ulcerations not associated with perichondritis of the arytenoid cartilages were definitely relieved of pain ; they were able to eat, gained weight and generally became improved.

The writer feels that the tuberculous ulcer was not the cause of the pain but the secondary infection of this ulcer by pyogenic organisms. The sulphanilamide eliminates the pyogenic organisms and the pain immediately disappears.

ANGUS A. CAMPBELL.

Der Kragenschnitt bei den Facharztlichen Operationen am Hals. E. LUSCHER. *Acta-Otolaryngologica*, March 1st-June 30th, 1946, xxxiv, 2-3.

The author reviews the literature of laryngeal operations and quotes his personal cases. He recommends a transverse incision in the neck for thyrotomy and laryngo-fissure.

G. H. BATEMAN.

NOSE

On Rhinological Methods of Operating Large Dental Cysts in the Upper Jaw. HARRY BJORK. *Acta Otolaryngologica*, March 1st-June 30th, 1946, xxxiv, fasc. 2-3.

The author recommends a rhinological approach to the surgery of these cysts. Central cysts should be drained into the floor of the nose and lateral cysts should be treated by a Caldwell-Luc incision, removal of the cyst lining, removal of the common wall between the cyst and the antrum and drainage of the antrum into the nose through the inferior meatus. Dental treatment should be completed before the cyst is treated. He considers that the method of Partsch, removal of the external wall of the cyst and packing the cavity from the mouth, is tedious and out dated. The article is well illustrated.

G. H. BATEMAN.

ŒSOPHAGUS

External Operations for Removing Foreign Bodies from the Œsophagus. HARRY BJORK. *Acta-Otolaryngologica*, March 1st-June 30th, 1946, xxxiv, 2-3.

The author reviews the literature of œsophagotomy. He reports four personal cases of œsophagotomy.

He concludes : that external operation is seldom necessary when good endoscopic equipment is available. That external operations should be performed without delay if endoscopic removal fails, or if signs of perforation are present.

That cervical œsophagotomy combined with manual removal or endoscopic removal is indicated if the foreign body is at or above the bifurcation of the trachea.

That gastrostomy combined with manual or endoscopic removal is indicated if the foreign body is below the bifurcation.

That bilateral drainage operation is indicated when extensive inflammation in the neck is present.

That trans-thoracic œsophagotomy is not necessary and carries a much higher mortality than cervical œsophagotomy or gastrostomy.

G. H. BATEMAN.

Miscellaneous

MISCELLANEOUS

Penicillin Therapy in the Practice of Otolaryngology. Lieutenant-Colonel GILBERT C. STRUBLE. *Arch. Otolaryng.*, 1945, xlii, 5, 327-338.

The writer and his associates outline their conclusions as follows:

Sinusitis—Penicillin administered by intravenous and intramuscular injection has a favourable effect if the sinusitis is in an early stage and acute empyema has not already developed. It has usually shown no more promise than adequate and carefully followed-up treatment with the sulfonamide compounds. In subacute and chronic empyema of the ethmoid and sphenoid sinuses, local penicillin shows great promise.

Acute Otitis Media and Mastoiditis—If penicillin is given early, the infection may be aborted. It must be given in adequate doses and over a sufficiently long period to prevent development of penicillin-resistant strains of bacteria and relapses. If given late, it may mask the infection and symptoms. If the surgical indications for drainage are still present, myringotomy and mastoidectomy are resorted to. In cases of mastoiditis or petrositis, one may not rely on penicillin pre-operatively or post-operatively to prevent or control extension of the infection to the meninges and brain, because it does not reach the spinal fluid in appreciable amounts. If, after mastoidectomy, any intracranial extension is feared, give sulfonamide drugs in addition to penicillin. In most cases of acute infection of the middle ear or mastoid, sulfonamide drugs given early have been found to be as effective as penicillin. Late in the disease, either of these agents may mask symptoms.

Local post-operative application of penicillin receives favourable comment.

In *Chronic Otitis Media and Mastoiditis*, both systemic and local use of penicillin are reported on unfavourably.

No statistics are given, but illustrative cases are recorded.

R. B. LUMSDEN.

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