ABSTRACTS

EAR

Some remarks on the Fenestration Operation and what leads to the results. J. VENKER. *N.V. Noord-Hollandsche Uitgevers Maatschappij.* Amsterdam, 1947.

This monograph is based on the author's experience of the fenestration operation on 25 patients.

After a comprehensive outline of the development of the surgery of otosclerosis an account is given of the author's equipment and procedure that includes a description of a one-piece suction and flushing device for clearing the operative field.

Short notes of twelve operated cases are given and there is a general review of post-operative complications, results, and indications for operation.

Slight improvement in hearing in the non-operated ear has been noted in some cases and is attributed to an active vasomotor reflex, thus re-affirming Gray's theory.

Further support for this theory is offered by a number of cases of otosclerosis in which the deafness remained stationary for some years and which all exhibited a good vascular reflex of the tympanic membrane. Also the vasodilatation that followed the inhalation of amyl nitrite was sometimes accompanied by an improvement in the hearing. Mention is also made of operations upon the aural sympathetic ganglia and peri-arterial sympathectomy of the carotid artery in cases of otosclerosis.

This 73-page monograph is illustrated by one plate and 53 charts and diagrams and it has 118 references.

T. E. CAWTHORNE.

Surgery of the Seventh Nerve. THOMAS D. TICKLE, M.D. (New York). *Jour. A.M.A.*, April 10th, 1948, cxxxvi, 15, 969.

The writer reviews the literature on this subject, especially the work of Ballance and Duel.

A patient with paralysis of the facial nerve in which response to faradic stimulation has been lost and the angle of whose mouth in repose is drooping should have surgical treatment.

Some sort of magnifying glass is essential.

Cases in which paralysis appears immediately following a simple or radical mastoidectomy and in which faradic stimulation is lost within 72 hours should have the nerve uncovered and inspected.

Surgical damage to the nerve occurs when the operator has gone too low when trying to locate the antrum, when curretting the retrofacial cells, when probing the antrum too vigorously or when curetting granulations from the floor.

Ear

Pre-operative paralysis in acute otitis media is of itself no indication for operation but if there is a quick loss of faradic response and evidence of mastoid involvement a simple mastoidectomy without decompression should be performed.

Pre-operative paralysis in chronic cases is quite different and radical mastoidectomy without decompression is indicated. If there is a faradic response and no fistula seen, decompression may be postponed for six weeks.

When a decompression is done, the nerve should be uncovered from the stylomastoid foramen up to the geniculate ganglion and the sheath slit over the entire exposed nerve.

When small strands of nerve are left these strands should be preserved.

When the nerve is divided, the writer prefers the nerve graft although he has had satisfactory results from the so-called cable graft.

In re-routing the nerve, it is almost impossible to get a dry ear.

Sutures in grafts and end to end anastomosis operations are not advisable.

An infected wound is not a contra-indication to doing a nerve graft.

When there is no response to galvanic stimulation, showing the muscles have either atrophied or have become fibrosed, operation is useless.

In the 10 per cent. of cases of Bell's Palsy which do not recover spontaneously and which lose response to faradic stimulation and show no improvement in six weeks time, a decompression operation should be done.

The function of the frontalis muscle practically never recovers and the patient will rarely be able to elevate the upper lip on the paralysed side as well as on the good side.

The article has a bibliography.

ANGUS A. CAMPBELL.

Chorda Tympani Nerve Graft: A Preliminary Report of a New Technic used in Surgical Fenestration of the Labyrinth. SAMUEL ROSEN, M.D. (New York). *Archives of Otolaryngology*, 1948, xlvii, 4, 428-437.

The chorda tympani nerve is liberated from its attachment to the facial nerve and is placed over the fenestra to protect the membranous labyrinth and the perilymphatic space from the untoward effects of blood and inflammatory products coming mostly from the overlying tympanomeatal flap.

A series of eight consecutive patients operated on with the new technic showed recovery of useful hearing within two weeks and continued improvement during the first seven months.

Data are presented from four other series of cases showing the results of early post-operative audiometric testing and the four series and the present series are compared with respect to the six week and one year audiometric results.

R. B. LUMSDEN.

Calcium and Phosphorus, and Phosphatase Activity in Otosclerosis. EDMUND PRINCE FOWLER, M.D. (New York). *Archives of Otolaryngology*, 1948, xlvii, 4, 491-500.

The blood serum calcium, phosphorus and phosphatase determinations in 160 patients indicate that phosphorus (inorganic phosphate) was below 3·5 mg.

per hundred cubic centimetres (the low limit) in 62 per cent. of the women and 56 per cent. of the men. The calcium also was definitely on the low side, being below 9·5 mg. per hundred cubic centimetres in 70 per cent. (66 per cent. of the women and 80 per cent. of the men). The phosphorus was below 3·5 mg. in two-thirds of those with calcium below 9·5 mg. and the calcium was below 9·5 mg. in over two thirds of those with phosphorus below 3·5 mg. The percentage of patients in which association of low calcium and low phosphorus occurred has not heretofore been demonstrated in studies of otosclerosis.

The phosphatase activity was within normal limits except in a few of those with low calcium. The possible significance of such findings is discussed.

It would appear that the important implication of these blood chemistry determinations is that intake and utilization of calcium and phosphorus should be carefully studied and controlled, especially during those periods of life when an ample supply is necessary for the good health of the body as a whole, and particularly in those cases in which there is a family history of otosclerosis, with a view to insuring the maximum required for health of the bone containing the inner ear. In view of the findings it would be folly to neglect this in spite of the meagreness of knowledge of the causes of the lesions of otosclerosis or of the causes of their activity. R. B. LUMSDEN.

NOSE

Tumours of the Nose and Sinuses. LEROY A. SCHALL, M.D. (Boston). *Jour. A.M.A.*, August 7th, 1948, cxxxvii, 15, 1273.

This article is based on a study of 219 patients seen during the past 16 years.

Hæmorrhage, nasal obstruction, referred pain, painless swelling, sensory changes in the cheek and exophthalmos should cause the rhinologist to suspect cancer in this area.

A biopsy should be done in every case and an exploratory operation may be advisable so that the plan of treatment can be outlined. A quick section is not recommended.

Repeated roentgen examinations in suspicious cases should be the rule.

If the biopsy shows the tumour to be an anaplastic new growth, radiation may be used alone. When the new growth is not of the anaplastic type, surgical treatment followed by radiation or the direct implantation of radium, in the operative field supplemented by external radiation, is the treatment of choice.

Adequate exposure may be obtained through a lateral rhinotomy using a modified Moure incision. Free bleeding may be encountered but it has not been found necessary to ligate the carotid artery. The entire operative area should be desiccated with a coagulating current and radium inserted to destroy any scattered tumour cells. Depending on the sensitivity of the tumour, radium is left in place for a total of 2,000 to 4,000 milligram hours.

If exophthalmos exists, the orbit is exenterated.

The writer feels that patients treated primarily by surgery supplemented by external radiation or by means of radium in the operative cavity have a better than 2 to 1 chance of a 5 year survival than those treated primarily by radiation.

Seven detailed case histories are given. ANGUS A. CAMPBELL.

Nose

Disturbances of Olfaction resulting from Intranasal use of Tyrothricin : a Clinical Report of seven cases. ERNEST M. SEYDELL, M.D. and WILLIAM P. MCKNIGHT, M.D. (Wichita, Kan.). *Archives of Otolaryngology*, 1948, xlvii, 4, 465-470.

Eight cases are reported in which anosmia or parosmia developed immediately, or shortly after, a solution of tyrothricin began to be used in the nose. These symptoms have been persistent, ranging in duration from four to eight months. The symptoms have outlasted by months the condition for which the solutions were originally prescribed. None of the patients were suffering from clinical influenza at the time of use of the solutions.

One patient was tested by injecting camphor water U.S.P. intravenously and showed no response. This would definitely place her condition in the category of an essential anosmia.

R. B. LUMSDEN.

Nonregeneration of the Mucous Membrane of the Frontal Sinus after its surgical removal (in the dog). GEORGE E. LIEBERMAN, M.D.(Phil.), and J. W. BABB, M.D. (London, Canada). *Archives of Otolaryngology*, 1948, xlvii, 4, 421-427.

Ten dogs were operated on over a period of one year, removing the mucous membrane from the frontal sinus, and opening the sinus two weeks, one month, two months, three months and four months later to observe the results. Four of the dogs died of intercurrent infections; the remaining six stood the operative procedures well and were in good condition at the end of the year.

Sections of the normal mucosa were removed at the first operations, as a control.

The lack of regeneration of mucous membrane in the surgically treated frontal sinuses of dogs was striking. No inflammatory exudate was seen in any specimen. What was present was a fibrous tissue process, with new bone and cartilage probably coming from the periosteum.

This work may explain some of the poor results which have so often followed radical or extensive operations on the paranasal sinuses in the human being.

R. B. LUMSDEN.

On the control of the Diphtheria Bacillus in the Chronically Diseased Nose. W. MESSERKLINGER (Graz). *Monatsschrift für Ohrenheilkunde*, 1948, lxxxii, 303.

In a series of 30 patients suffering from chronic nasal disease, the presence of diphtheria and diphtheroid bacilli was established in every case. Of these, 11 colonies in pure culture were obtained and re-examined, resulting in the establishment of 9 definitely positive but weak or avirulent colonies. Two had the attributes of the Gravis and Intermedius strains, one of the Intermedius, and six of the Mitis.

The avirulence, and the relatively frequent occurrence of the Intermedius strain is regarded, according to the opinion of several writers, as a peculiarity of the diphtheria organism. The secretion from the diseased nasal mucosa has a minimal antibacterial effect, resulting in a gradual transition to the diphtheroid form.

Of the colonies examined, 87·5 per cent. came from cases of atrophic nasal disease. The difference is stressed between diphtheria carriers with otherwise healthy nasal passages, and those with chronic nasal infections. The former, in the course of weeks or months, and with increasing resistance of the mucosa, tend to lose their diphtheria bacilli. The latter, on account of the irreversibility of the disease process in their noses, keep the organisms for the duration of the nasal disease—that is for the remainder of their lives.

Although, according to our present knowledge, the bacilli in the nose are practically harmless, they are extremely resistant to treatment, which is, on the whole futile.

D. Brown Kelly.

MISCELLANEOUS

Treatment of Migraine with Histamine. Dorothy Macy, Jr., M.D. and Bayard T. Horton, M.D. (Rochester, Minn.). *Jour. A.M.A.*, July 24th, 1948, cxxxvii, 13, 1110.

The following five factors are fundamental to the migraine syndrome: periodicity, cephalalgia, gastro-intestinal dysfunction, cortical disturbance and family history.

The pain is vascular in origin and is due to vasodilatation.

Morphine and all habit forming drugs have no place in its treatment.

One hundred and forty four migrainous patients were treated with histamine alone. In one-third of the patients, the syndrome was unchanged by treatment. Over one-half of the patients showed significant improvement and subcutaneous administration was found to be more effective than the intravenous methods. The administration of the drug by both subcutaneous and intravenous routes was found to be the most effective. There appeared to be no constant relationship between the total dose of histamine and the degree or duration of the abatement of symptoms.

Histamine was not found to be either a specific or truly curative agent in the treatment of this syndrome but until such an agent appears, histamine will continue to have an important place.

Angus A. Campbell.