are employed re-compression or descent must be carried out cautiously and the tube must be actively and regularly opened throughout the period of increase of atmospheric pressure.

The advisability of *early* treatment is emphasized because experience has shown that the severity of the effects of decreased intra-tympanic pressures, which have been aptly compared to dry-cupping of the tympanic mucosa (Campbell), is aggravated by the lapse of time.

I am indebted to Professor J. Chadwick, Department of Physics, University of Liverpool for his advice; to Squadron-Leader L. Jones, R.A.F., who constructed the model ear; to Dr. B. H. C. Matthews, F.R.S., and his Staff at the Royal Air Force Physiological Dept.; and to Squadron Leader E. C. Easson, R.A.F., and Flying Officer A. M. Abrahams, R.A.F.V.R., for their technical help and for use of the mobile decompression chamber.

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ABSTRACTS

EAR.

Vertigo due to obstruction of the Eustachian Tubes. F. W. MERICA, M.D. (Lakewood, Ohio.) *Jour. A.M.A.*, April 11th, 1942, cxviii, 15.

The writer bases his paper on clinical study of one hundred and thirty-five patients. He stresses the fact that vertigo caused by obstruction of the Eustachian tube is a distinct clinical entity and is often overlooked. Every patient with dizziness and nausea should be subjected to the therapeutic test of inflation of the tubes as the first step in clinical investigation. Staggering is usually in the direction of the obstructed side, and the direction of the gait often furnishes a clue. Many of the patients complained of fullness in the ears, tinnitus and partial deafness. Allergy and intemperance are often causative factors, and many patients have a low metabolic rate.

The writer feels the condition is caused by the unilateral Eustachian obstruction which interferes with the normal pressure in the perilymph.

The treatment consists in passing a catheter into the Eustachian tube and then a bougie, followed by inflation of air. Relief is often spectacular although sometimes an attack may be precipitated by inflation, but these attacks are relieved by promptly passing a bougie. ANGUS A. CAMPBELL.

Ear

Histamine in the treatment of Ménière's Syndrome. MILES ATKINSON, M.D., F.R.C.S.(Eng.). (New York). *Jour. A.M.A.*, May 2nd, 1942, cxix, 1.

In this paper the writer attempts to show the reason why histamine should not be used indiscriminately in this disease.

In a group, possibly about one-fourth of all cases of Ménière's Syndrome, histamine gives a positive skin test. Histamine is an irritating substance and produces considerable reaction even in normal subjects. Great care is necessary in interpreting the reactions. If the patient shows a positive skin reaction the results of desensitization are eminently satisfactory.

A second much larger group which shows a normal skin reaction to histamine cannot be treated satisfactorily by this drug, except over a short period of time, virtually the time of an acute attack.

Histamine is well known as a powerful peripheral vasodilator. When used repeatedly it appears to induce in the body an immunity to its action so that ultimately it loses its dilator effect. It may even cause increased frequency and severity of attacks, and sometimes an increase in deafness.

Nicotinic acid is free from this objection and can be given over long periods of time with often very rapid improvement as regards diminution in severity of attacks.

Three illustrative cases are reported where histamine failed and nicotinic acid succeeded. ANGUS A. CAMPBELL.

Tic Douloureux of the Nervus Intermedius. LEONARD T. FURLOW, M.D. (St. Louis). *Jour. A.M.A.*, May 16th, 1942, cxix, 3.

The writer describes one patient in which it would appear that tic douloureux of the nervus intermedius is a definite clinical entity.

The pain deep in the ear may be due to disorders of the nervus intermedius or the glossopharyngeal and the decision as to the nerve involved can be made only at operation. This requires the use of local anæsthesia so that the stimulation of the nerves may be done. The nervus intermedius may be sectioned without injuring the trunks of the VIIth or VIIIth nerve.

Accepted teachings as to the salivary and taste functions of this nerve are borne out in this case, but the lacrimal function is not substantiated.

The sensory field is evidently very small for only hyperesthesia of the external auditory canal has been produced. ANGUS A. CAMPBELL.

Otosclerosis. GEORGE E. SHAMBAUGH, JR., M.D. (Chicago). *Jour. A.M.A.*, May 16th, 1942, cxix, 3.

Otosclerosis is a unique disease of bone found only in man and is confined exclusively to the inner ear. The lesion consists of a rather sharply localized focus of vascular, spongy, newly formed bone, appearing in the labyrinthine capsule. The disease probably occurs in about four per cent. of the population, but it is only when it causes ankylosis of the stapes that the hearing is damaged. It is a disease of early or middle life and has a strong hereditary tendency.

The most the physician can do is to make the diagnosis, pay attention to the general health, and advise lip reading or the use of an electrical hearing aid.

The fenestration operation is indicated in cases of stapes fixation with sufficient deafness to constitute a handicap. The nerve of hearing must be

intact for conversational frequencies. The patient should be in good health, the drum membrane intact, and the ear free from recent inflammation. The poorer hearing ear should be selected for operation.

During the past few years the writer has performed the fenestration operation on one hundred and seventeen patients. The technique used for the operation is essentially that described by Lempert, being modified by the use of a binocular dissecting microscope and constant irrigation. Only a few minor complications occurred such as transient facial paralysis, sterile labyrinthitis and varying amounts of dizziness.

The hearing results in seventy-three patients whose hearing has been tested more than six months after operation show improvement in sixty-four, a further loss in two and no change in seven. The average gain in sixty-five patients with a probable permanent improvement is 25·7 decibels for conversation hearing. Many of the patients had used hearing aids before the operation. With two exceptions all the patients state that they now hear better without their aid than they could wearing the aid before the operation.

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

ANGUS A. CAMPBELL.

NOSE.

Caustic effect of Sodium Sulfathiazole Solution on Nasal Mucous Membranes. CHARLES W. FUTCH, M.D., LLOYD K. ROSENVOLD, M.D., and CHARLES E. STEWART, Jr., M.D. (Los Angeles). *Jour. A.M.A.*, May 2nd, 1942, cxix, 1.

Turnbull's favourable recommendation of a nasal spray of five per cent. sodium sulfathiazole prompted the authors to study the effects of solutions of sodium sulfathiazole in five and thirty per cent. concentrations when applied to the nasal mucous membranes of rabbits.

Their findings show that a five per cent. solution of sulfathiazole sodium sesquihydrate largely destroyed the cilia and superficial layers of columnar cells. The mucous blanket became irregular and showed breaks in continuity. Even after a week recovery did not take place.

The hydrogen ion concentration determinations revealed that both the five and thirty per cent. solutions had a pH of ten. It is possible that the high degree of alkalinity of the solutions may be a factor in causing the mucous membrane damage noted in these experiments. ANGUS A. CAMPBELL.

BRONCHI.

Bronchography in Children.

Dr. C. Elaine Field (*Lancet*, II, September 26th, 1942, p. 357) describes a new technique of bronchography in children in which they are anæsthetized with nitrous oxide, while a special intratracheal needle is introduced. During the injection of the iodized oil no anæsthetic is administered, since the best bronchograms are obtained in the fully conscious patient.

The method is suitable for children aged 5 years and over. For infants under 5 the less satisfactory method with open ether anæsthesia is employed. The article also describes a wartime tipping board.

MACLEOD YEARSLEY.