ABSTRACTS

EAR

Experiences with Parenteral Vitamin A Therapy in Deafness and Tinnitus. SHIRLEY HAROLD BACON, San Francisco. *Laryngoscope*, 1951, lxi, 530.

In 1938, Mellanby showed that animals placed on a vitamin-free diet developed degenerative changes in the auditory capsule, Scarpa's ganglion and the spiral ganglion. Lobel, in May, 1949, claimed to have produced improvement in hearing and tinnitus in a considerable proportion of about 300 patients, using an injection of Vitamin A which consisted of olive oil, terpins and the "A" factor in a concentration of 50,000 units per cubic centimetre. He argued that by this method of administration, the changes described by Mellanby were reversible. In July, 1949, Perlman (working on rabbits) was able to confirm Mellanby's results, but found that feeding them on a high Vitamin A diet did not restore the labyrinthine capsule to a normal state. Nor was any hearing-loss noted in any one of approximately 2,000 prisoners-of-war with known vitamin deficiencies in an extensive survey carried out in Japan. The present study is based on 36 cases treated by the method of Lobel. Five patients showed an improvement in hearing of more than 10 decibels for the conversational range, but only three (or 8·3 per cent.) of these had improvement which could not be explained by other factors. Of the 17 cases who had tinnitus, 4 stated that their tinnitus was less. It was abolished in none.

J. CHALMERS BALLANTYNE.

Recruitment of Loudness in the Differential Diagnosis of End-Organ and Nerve Fibre Deafness. LEE G. EBY and HENRY L. WILLIAMS, Rochester. *Laryngoscope*, 1951, lxi, 400.

In 1936, E. P. Fowler, Sen., first described the assessment of loudness recruitment by the "alternate binaural loudness balance" test, whereby he was able to distinguish perceptive from conductive deafness. In 1948 Dix, Hallpike and Hood stated that the recruitment phenomenon was present in lesions of the end-organ but absent in those of the nerve fibres of the auditory nerve. In 1950, Fowler disagreed with these conclusions, citing one single case of neurofibroma of the VIIIth nerve in which recruitment was shown in a pre-operative audiogram. Writing from the Mayo Clinic, the authors of the present paper have studied 32 patients with unilateral deafness diagnosed as Ménière's disease and 16 patients with unilateral auditory nerve deafness due to a variety of causes. Loudness recruitment was present in every one of the cases of end-organ deafness due to Ménière's disease and was absent or incomplete in all of the cases diagnosed as nerve fibre deafness, in half of which the diagnosis was substantiated by the operative findings.

J. CHALMERS BALLANTYNE.

Nose

NOSE

Observations on the Local Use of Cortisone in the Nose in Allergic Rhinitis. J. LEWIS DILL and DONALD S. BOLSTAD, Detroit. *Laryngoscope*, 1951, lxi, 415.

In view of the encouraging results obtained in a variety of eye conditions by the topical application of a diluted solution of cortisone, 25 patients suffering from allergic rhinitis have been treated by the same solution—1 c.cm. of cortone acetate in 4 c.cm. of normal saline—used as a nasal spray. Sixteen had nasal polypi, 17 had been found sensitive on allergic studies; 2 were children, 17 were men, 6 were women. All the patients were followed for several months. Of the 25 treated, 12 (or 48 per cent.) showed marked improvement; 6 (or 24 per cent.) had some improvement; the remaining 7 (or 28 per cent.) had no improvement. Six case reports are presented in detail.

J. CHALMERS BALLANTYNE.

Osteomata of the Frontal Sinus with Special Consideration of the Surgical Removal. BENTON N. COLVER, Los Angeles. *Laryngoscope*, 1951, lxi, 341.

The author describes two types of osteomata occurring in the frontal sinus—(1) the commoner hard and usually pedunculated type, and (2) the less common soft, spongiose type. The pedicle in the former is soft and must be curetted down to normal, healthy bone in its surgical removal; in the spongiose osteoma, removal of the soft bone may have to be taken down to the dura. Six cases are presented in detail—all of the ivory variety. In the first, complete removal of the outer plate of the frontal bone together with the osteoma resulted in considerable deformity. In order to prevent this the second case was treated by a "lid operation", in which the lid was made by making a series of small drill holes through the outer plate into the sinus and connecting these by making a furrow with a smaller drill. It is uncertain whether the lid of bone replaced after removal of the osteoma will behave as a sequestrum, and so a third technique—the "hinge operation"—has been devised whereby intact periosteum and connective tissue provide an adequate circulation from below. The paper is well illustrated.

J. CHALMERS BALLANTYNE.

Observations in Treating Seven Cases of Choanal Atresia by the Transpalatine Approach. HAROLD OWENS, Los Angeles. *Laryngoscope*, 1951, lxi, 304.

The nasal fossa on the obstructed side is always narrowed in cases of choanal atresia by a crowding of the lateral wall medially and by a shortening of the posterior and lateral pharyngeal walls. The passage of instruments through such a narrow passage creates raw surfaces for the formation of adhesions over a much greater area than the original obstruction. For this reason, surgical correction of the deformity by the transnasal approach gives poor results. Other methods have therefore been devised and the one described

in this paper is the author's modification of Ruddy's transpalatine operation. A semicircular incision is made from just inside the second molar tooth, well forward to 1 centimetre in front of Scarpa's foramen and is carried down to bone. Inclusion of the greater palatine vessels in the flap ensures a good blood supply. The flap is elevated back to the posterior border of the hard palate and the mucous membrane of the floor of the nose is reflected forward to the obstruction. After removal of the bony palate to the same level, the obstructing plate is bitten out to its margins with punch forceps. The vomer is next exposed from behind and enough removed to give an adequate opening. A flap from the septal mucosa covers the raw surface at the side of the obstruction. all bleeding is controlled and the palatine flap replaced. No post-operative packing or intubation is necessary as the flap minimizes cicatricial contraction. Early operation may prevent poor development of the nasal and pharyngeal cavities on the obstructed side. Ample illustrations of the surgical technique accompany the article.

J. CHALMERS BALLANTYNE.

MISCELLANEOUS

The Contribution from Guy's Hospital to Oto-laryngology. PHILIP READING, London. *Guy's Hospital Reports*, 1951, c, 1.

At Guy's Hospital the Aural Department was founded in 1863, James Hinton being appointed surgeon to it, and in 1886 the Throat Department was founded, with Sir Charters Symonds, then an assistant surgeon on the general hospital staff, in charge of it ; the two departments were merged in 1912, but until that date a general surgeon had been at the head of the throat department. Oto-laryngology owes much to the general surgeons and the physicians of Guy's Hospital. The author of this interesting and well illustrated survey begins by quoting the method of dissecting tonsils described by Samuel Sharp, in his book *A Critical Enquiry into the Present State of Surgery*, published in 1750, and goes on to discuss the writings of Sir Astley Cooper in his endeavours to alleviate deafness (for which he received the Copley Medal of the Royal Society) and to remove a " cancerous tumour " from the larynx, and of Richard Bright, who described laryngeal tuberculosis in 1827. Benjamin Guy Babington, who was born within the precincts of Guy's Hospital, described a practical laryngoscope, the " glottiscope ", long before Garcia, though he does not seem to have seen the vocal cords with it ; almost more tantalizing is to see in the Gordon Museum at Guy's three laryngeal mirrors, square in outline as the early mirrors were, to which is a card attached with the inscription " Laryngeal Mirrors, 1857 "—for Czermak published his first paper on laryngoscopy in 1858, and no Englishman is known to have been practising laryngoscopy before 1859. Other famous Guy's men who advanced otology and laryngology are John Hilton (of *Rest and Pain* fame), Sir William Gull, Charters Symonds who introduced intubation for cancer of the œsophagus, Arthur Durham, who improved the tracheotomy tube, and Arbuthnot Lane, who was the first to operate for lateral sinus thrombosis. Philip Reading has done well thus to commemorate his distinguished predecessors.

R. SCOTT STEVENSON.

Miscellaneous

Practical Problems in the Use of Cortisone and ACTH. JOSEPH LEE HOLLANDER, Philadelphia. *Laryngoscope*, 1951, lxi, 565.

Cortisone and ACTH may produce immediate relief, and often very dramatic relief, in certain conditions but " they must be continued much as a diabetic is kept on insulin, to produce a consistent effect in chronic conditions ". The effect of these hormones is much the same as that of the anti-histaminics in hay-fever : it suppresses the reaction ; it does not affect the cause. Asthma and hay-fever may be dramatically alleviated ; polypi may disappear from the nose, only to return when the drug is discontinued ; and lymphoid tissue may shrink, only to return to its original condition (or worse) when it is stopped. These drugs are expensive and there are many dangers and contraindications—secondary infection may occur, the formation of fibrosis in healing is impeded, œdema follows in cases of cardiac decompensation, uræmia may supervene in renal failure, tuberculosis may be lighted up, and a psychotic episode may be re-precipitated. Cortisone and ACTH should, therefore, be reserved as the " ace in the hole " for serious trouble. To use it for a trivial condition is really " driving a tack with a sledge hammer ".

J. CHALMERS BALLANTYNE.

The Exfoliative Cytology in Patients with Carcinoma of the Oral Mucosa. P.W. MONTGOMERY and E. VON HAAM, Ohio State University. *Journal of Dental Research*, 1951, xxx, 308.

Fifteen patients with oral carcinoma had cytologic smears prepared from the lesions and 13 of them had other smears taken from normal areas of their oral mucosa. The smears were stowed and fixed by the method of Papanicolaou and Traut. Analysis showed that there was no significant difference between the normal areas of the mouths of patients with oral cancer and corresponding areas of the mouth in normal subjects. Significant differences in the cytological morphology and cellular pattern were present, however, in the smears from the lesions of 13 of the 15 patients, permitting the diagnosis of malignancy from the smears. An abnormally large nucleus with atypical nucleoli was the most frequently found characteristic of malignancy, and smears taken from the centre of the lesion proved diagnostically of more value than those taken from its margin.

F. BOYES KORKIS.

Treatment of Pharyngo-Œsophageal Diverticulum by Inversion of the Sac. GEORGE CRILE, Junior, and A. H. ROBNETT, Cleveland. *Cleveland Clinic Quarterly*, 1951, xviii, 42.

The treatment of pharyngo-œsophageal diverticulum by simple inversion of the sac was described so long ago as 1895 by C. Girard, of France, but since then, except for an occasional case-report, such as those of A. E. Halstead (1904), A. D. Bevan (1921) and D. E. Ross (1944), it has been replaced by excision of the diverticulum. The authors report eleven cases treated by inversion of the sac and repair of the overlying musculature, with entirely satisfactory end results. The operation, they assert, is simple, safe and aseptic ;

the œsophagus is not opened, so that danger of infection is minimized ; there is no necessity for tube feeding ; and the period of hospitalization has been shortened so that most patients are ready for discharge on the fourth or fifth day after operation.

R. Scott Stevenson.

Treatment of Dental and Dentigerous Cysts. R. Trauner, Graz. *International Dental Journal,* 1951, i, 97.

The aim in the treatment of a dental cyst is not necessarily to remove it completely, but to stop the destruction and facilitate the regeneration of the jaw-bone. The following methods can be employed : (1) Enucleation or total extirpation with (*a*) primary suture of the oral mucosa, (*b*) open drainage and packing; (2) Marsupialization *i.e.* wide opening of the cyst into the mouth ; mouth ; (3) A combination of (1) and (2). (4) Opening the cyst into the nose as in a Caldwell-Luc operation ; (5) Destruction of the cyst epithelium by chemical means. The method of choice varies : after the marsupialization operation, 5 per cent. of 184 cases showed recurrence ; after enucleation, 2 per cent. of 211 cases showed recurrence.

F. Boyes Korkis.

Tracheotomy in Tetanus. E. Herzon, E. Killian and S. J. Pearlman, Chicago. *Archives of Otolaryng.*, 1951, liv, 143.

Typical figures from recent literature show that the mortality in tetanus varies from 35 per cent. to 63 per cent. Experimental physiological and histopathological studies reveal the primary factor to be respiratory failure. In addition, the use of central nervous system depressants may contribute to respiratory decompensation. These facts on mortality, pathogenesis and causation of death prompted the authors to enquire into the rationale of the current treatment of tetanus, and they present six cases in which tracheotomy was required for survival. The indications for tracheotomy in tetanus depend upon neuro-muscular dysfunction and mechanical obstruction. They are : (1) Prolonged spasm of the muscles of respiration, (2) absent cough reflex, (3) absent swallowing reflex, (4) laryngeal obstruction, (5) secretion in the tracheobronchial tree, (6) tongue trauma, and (7) coma. They believe that tracheotomy should be done before irreversible respiration decompensation occurs owing to any or all of these factors. If curare is used, neostigmine should be at the bedside and one should be prepared to do artificial respiration. Sedation with the barbiturates impairs respiratory function.

R. Scott Stevenson.