

Clinical Record

The muscle fibres in all three seem to be part of the growth and not torn from the underlying constrictor muscle.

These three strikingly similar tumours are clearly innocent in nature and the name Fibroadenolipoma, which Friend gives to his tumour fits them all.

REFERENCES

- ¹ O'DONNELL, J. H., *Journ. of Laryngol. and Otol.*, May 1940, lv., 254.
² FRIEND, L. J., *Archives of Otolaryngology*, May 1926, iii, 448.

ABSTRACTS

EAR

Closure of Operative Fenestrae in the Labyrinth. E. P. FOWLER (New York). (*Archives of Otolaryngology*, August 1941, xxxiv, 2.)

The operation which consists in making a fistula in the labyrinth is being more and more frequently performed in cases of otosclerosis. Nevertheless in two of every three cases the fistula has closed within two months. In a series of experiments on monkeys, the writer has attempted to solve the problem of bone regeneration in the labyrinth capsule. Fourteen experiments are described in detail and appear to indicate that the periosteal bone of the monkey grows more rapidly than that of human beings. It has been observed by Nager that fractures of the labyrinthine capsule do not unite by bony union. In the present series of experiments, however, there was definite bone regeneration from the endosteum as well as from the periosteum. The regeneration may be partly prevented by an epithelial graft, but the use of a Thiersch graft is not to be recommended as it may induce the formation of cholesteatoma. Should infection occur, the bone regeneration appears much more rapidly than it does in a sterile cavity. The paper is illustrated by 10 microphotographs.

DOUGLAS GUTHRIE.

Otosclerosis. Symptoms in the external and middle ear.

GUNNAR HOLMGREN. (*Acta Oto-laryngologica*, 1941, xxix, 91.)

The author considers that the symptoms in the external and middle ears in otosclerosis have not been sufficiently considered and no attempt has been made to bring them into alignment with

Abstracts

the fundamental condition. Most of the textbooks and monographs hardly mention these symptoms. Reduction of the secretion of cerumen and of the sensibility of the skin are well known but the other symptoms are rarely mentioned. They include atrophy of the skin of the meatus, dilatation of its lumen, reduction of the tickling reflex, the thinness and the transparency of the tympanic membrane, the reduced or absent mobility of the handle of the malleus and the increased mobility of the tense portion of the membrane, and the loss of vascular reflexes and the author considers them all to be symptoms of ankylosis of the stapes. As for the ankylosis of the ossicular chain Covell has confirmed this opinion and has explained the pathology.

The author gives a hypothetical explanation. An increase of the intralabyrinthine pressure fixes the foot-plate of the stapes and predisposes to its ankylosis. Then all the chain of ossicles becomes fixed. When the handle of the malleus is immobile the nutrition of the tympanic membrane and the wall of the external meatus is changed either mechanically or reflexly, with atrophy and a reduced irritability as the consequences. This hypothesis places all the symptoms of the external and middle ears in relation one with another and explains their connection with the basic condition.

F. C. ORMEROD.

The Ossicles in Otosclerosis. W. P. COVELL. (*Acta Oto-laryngologica*, 1940, xxviii, 263.) (From the clinic of Professor Nager, Zurich.)

There are few otoscopic findings in otosclerosis, but Holmgren has recently drawn attention to the reduction of movement in the shaft of the malleus. He has observed this by fixing two parallel hairs in a Siegel's speculum and watching the movement under compression and rarefaction. He suggested that the fixation of the stapediovestibular joint causes the incus to become immovable and to cause a locking of the malleoincudal joint.

The author has investigated changes in the ossicles themselves as well as their articulations in cases of otosclerosis. He has grouped the changes in the region of the oval window into four groups. I. With extensive ankylosis. II. With lesions at one point with local ankylosis. III. Lesions present, but no ankylosis, and IV. Lesions in the opposite temporal bone. His material consisted of forty-six temporal bones with otosclerotic changes and eleven in which the lesion was in the opposite temporal bone. In group I he found that there was some displacement of the ossicular chain in over 90 per cent of the bones, in group II with rather less ankylosis there was displacement in every case and in group III

Nose

displacement in 93 per cent. In group IV there was no displacement. In groups I and II there was extreme displacement in 50 and 25 per cent of cases but in groups III and IV there was no extreme displacement. The displacement took the form of a movement of the head of the stapes in the direction of the stapedius tendon. The end of the lenticular process of the incus was displaced upwards and the ligaments were stretched until the two ossicles were no longer held in alignment. With this displacement of the incus there was a movement of the whole body of the ossicle upwards and a rotation inwards. The small articular process (cog process) of the incus was found to be in contact with the articular surface of the malleus inside the joint thus reducing or abolishing movement. The articular surfaces of the malleus and incus were not parallel and the unequal tension at different parts of the capsule was shown by an increase of fibrous tissue.

Changes in the bony structure of the ossicles occurred in all four groups (in from 54 to 86 per cent). Otosclerotic changes occur in the neighbourhood of the malleoincudal joint, close to the articular surfaces of both bones and also in other parts of the head of the malleus. These changes are not found, however, in the long process of the incus or in the head of the stapes. It is notable that there are no cartilage rests in these parts of the ossicles as there are in the massive parts of the incus and the malleus. It may be that this lack of enchondral bone may explain the absence of otosclerotic changes in these positions. The areas of greatest vascularisation of the ossicles are found in the neighbourhood of the articulations—which are not true joints.

F. C. ORMEROD.

NOSE

The Sphenoid Sinus. O. E. VAN ALYEA (Chicago). (*Archives of Otolaryngology*, August 1941, xxxiv, no. 2.)

This anatomical study of the sphenoid sinus is based upon the examination of 100 adult specimens taken at random and of a series of foetal heads of various ages.

The origin and development of the sinus is described in detail. No definite cavity can be recognized until the third or fourth year. The size of the adult sinus varies greatly; the average antero-posterior measurement in the present series was 23 mm., the width was 17 mm. and the height 19 mm. The adjacent nerves and blood vessels have received detailed study. Most closely related to the wall of the sinus are the internal carotid arteries and the optic, Vidian and maxillary nerves. Each of those structures gives rise to a definite elevation of the sinus wall in 40 to 50 per cent

Abstracts

of cases. The internal carotid artery leads in frequency and degree of projection into the sinus. An elevation was present in 65 of the 100 specimens; in 14 the entire course of the vessel could be traced on the sinus wall. Next in frequency is the optic nerve (40 per cent). The rôle of sphenoidal sinusitis in retrobulbar neuritis has been questioned by a number of writers, and doubt has also been expressed as to the frequency of Vidian or sphenopalatine neuralgias. The recesses and excavations in the sphenoid are also studied. In most cases the pituitary gland is separated from the sphenoid sinus only by a very thin partition. No case of absence of the sinus was observed. The ostium usually measures 3 by 2 mm. In one-third of specimens the opening was equidistant from roof and floor; in the remainder it was more frequently nearer the roof. It may be probed without difficulty in the majority of cases.

The paper is illustrated by 13 figures and there are 38 references.
DOUGLAS GUTHRIE.

LARYNX

Acute Laryngitis complicated by Recurrent Paralysis. A. J. MOFFETT.
(*Lancet*, 1941, ii, 523).

The author records two cases, both soldiers, within a few days of each other during a period when acute upper respiratory infections were fairly common. The first, aged 19, had earlier severe sore throat followed by gradual loss of voice. The right vocal cord showed complete recurrent paralysis. Friedlander's bacillus and pneumococcus on culture. Voice returned gradually three days later. The second, aged 38, twelve days before examination was walking on a bright frosty morning when he experienced sudden tickling in throat. Grew steadily worse, with violent fits of coughing in paroxysms ending in alarming respiratory stridor, recurring nightly. Post-nasal swab showed *Staphylococcus aureus*. Larynx and trachea acutely inflamed and ten weeks after onset laryngitis was gone and the paralysed cord had regained considerable range of movement.

MACLEOD YEARSLEY.

Paralysis and Paresis of the Vocal Cords. W. P. WORK (Ann Arbor).
(*Archives of Otolaryngology*, August 1941, xxxiv, no. 2.)

This paper gives an analysis of 257 cases encountered in 14 years; 212 showed complete paralysis and 45 showed paresis. Recurrent nerve paralysis occurs later in life in males than in females, if goitre cases are disregarded. Thirty per cent of the patients with vocal cord paralysis had no laryngeal symptoms and 50 per cent of the paretic cases had no symptoms. In 22 per cent no cause could be

Miscellaneous

discovered. This is rather a low figure compared with similar observations by other writers. Transient paresis of the vocal cords is found in certain cerebral lesions ; such cases are often missed. Vocal cord paralysis was noted in bulbar paralysis (2), amyotrophic lateral sclerosis (2), syringomyelia (5) and progressive muscular atrophy (1) in the present series. Post-operative paralysis after thyroidectomy is seven times more common in females than in males. Bilateral impairment of function is found once in every six cases of post-operative paralysis. The left cord is more often affected than the right. Recovery occurs in 25 per cent of the post-operative cases of paralysis and in 50 per cent of cases of paresis. Prognosis in cases other than post-operative is poor, about 5 per cent. The paper is illustrated by four tables, and 17 references are given.

DOUGLAS GUTHRIE.

Diagnosis and Direct Laryngoscopic Treatment of Functional Aphonia.

WILLIAM A. BELL. (*Archives of Otolaryngology*, July 1941, xxxiv, no. 1.)

As long ago as 1880 Morrell Mackenzie stated that functional aphonia is almost always associated with laryngitis, the congestion disappearing soon while the aphonia persists. The observation has been confirmed by many writers since that time. In such cases careful laryngoscopic examination is very important, so as to exclude the presence of an organic lesion, while radiography may rule out the possibility of tuberculosis. Direct laryngoscopy, after the application of a swab soaked in 10 per cent cocaine to each pyriform sinus, may be used not only to examine the subglottic region but as a means of treatment. When the cords are clearly seen the patient is asked to phonate, and when a tone is produced he is asked to repeat it, so as to register a definite mental impression. The laryngoscope is slightly withdrawn and the patient again is requested to phonate. In all cases in which this method has been used, the power of phonation continued after the removal of the laryngoscope. The anterior commissure laryngoscope is the instrument of choice. Details of five cases are given and a series of interesting photographs of the larynx illustrates the paper.

DOUGLAS GUTHRIE.

MISCELLANEOUS

Studies in ciliary movement in the Upper Respiratory Passages.

PAUL FRENCKNER and N. G. RICHTNER. (*Acta Oto-laryngologica*, 1940, xxviii, 215.)

An investigation has been made into the behaviour of the ciliary membranes of the upper respiratory passages in man and in

Abstracts

animals both in the living subject and in anatomical preparations, under normal and various abnormal conditions. Portions of ciliary membranes from normal animals, from adenoid vegetations, from polypi and from portions of mucous membrane from healthy human structures. Under normal conditions the frequency of the ciliary beat is from 160-250 beats per minute. Repeated infections of the naso-pharynx seem to arrest the ciliary activity of the adenoids. Ether anæsthesia, and also injection of pernocton or urethran have very little effect, but ethyl chloride has a certain arresting action. Local anæsthetics check the ciliary activity temporarily. Vitamin experiments show that a prolonged reduction of intake of vitamins A, C and D causes slowing of the ciliary activity, but that a short complete avitaminosis has no obvious effect. Variations in the supply of various hormones does not appear to have any effect. Anatomical specimens kept in Ringer's solution do not show any inhibition of ciliary activity even after eight or ten hours, but in physiological salt solution the frequency of the ciliary beats is reduced. Ephedrin has a stimulating effect, but adrenalin in moderate dilution has a inhibitory action; in the usual dilution to one in a thousand, however, there was no visible effect on the cilia. Amongst bactericidal solutions a weak concentration of colloidal silver solution seemed to be indifferent, but 2 per cent ephedrin combined with 5 per cent neoprotosil has an obviously stimulating effect. Chloramine had no effect after $2\frac{1}{2}$ hours nor had injections of prontosil. Expectorants and volatile oils have usually caused some slowing of the ciliary movement when used in the usual rather strong concentrations, but in weak solution or when used for a short time they have a stimulating effect.

It was noted that the inhibitory action of many of these substances was less marked in the living individual than in sections of extirpated mucous membrane.

F. C. ORMEROD.