

## ABSTRACTS

### EAR

*Attempts at the Formation of a Permanently Patent Osseous Fistula in Otosclerosis.*  
JENS BING and KARSTEN KETTEL, Copenhagen. *Acta Oto-laryngologica*,  
1950, Supplementum xci.

The authors present an illustrated interim report on the results of attempts at making a permanently patent osseous fistula by inserting polyethylene tubes of different types. Some were inserted in osseous fistulae drilled in the skulls of rabbits, and the results were studied after the animals had been killed; others were used for insertion into a fenestra nov-ovalis in operations for otosclerosis, and the results were studied by audiometry and other clinical examinations. The operations were carried out according to Lempert's usual technique, with the modifications advocated in particular by Shambaugh: the fistulae were thus made under the microscope, with constant irrigation and suction, and the bone over them was removed in one piece according to the cupula principle. The series of patients, 14, is quite small, and the period of observation is short; nevertheless, the experiences of the authors have been encouraging and they hope to have the method tested on a broader front. In nine patients, observed after six to nine months, there was a good improvement in the hearing; in one, the improvement was but slight, but the patient was rid of his troublesome tinnitus. The fistula symptom was present in all ten patients, and none of them complained of vertigo at the examination six to nine months after operation.

R. SCOTT STEVENSON.

*New Technique of Fenestration for Otosclerosis.* M. OMBRÉDANNE, Paris.  
*Annales d'Oto-Laryngologie*, 1950, lxxvii, 673.

Professor Ombredanne describes a technique for fenestration which he has elaborated and which he considers gives greatly improved results in hearing, although he gives details of two cases only. He makes an endaural incision, under local anæsthesia, and removes completely the tympanic membrane, malleus, incus and the two branches of the stapes, leaving the footplate fixed *in situ*. He does not employ an electric drill, but with a special curette makes a window in the external semicircular canal, 3 millimetres long by 1.5 millimetres broad, so that the ampulla can be seen. He then removes the centre of the promontory with the curette, until a characteristic blue line appears; this window is circular and small. A skin flap from the auditory meatus is placed carefully covering both windows and the opening of the Eustachian tube, with a dressing impregnated with penicillin gently pressing upon it. Nystagmus, vertigo and vomiting are more severe than after a usual fenestration, but disappear by the sixth day. In a month there is complete

## Ear

cicatrization. One case dates back to November, 1948, and the other to January, 1950. Further information will be awaited with interest.

R. SCOTT STEVENSON.

*Evaluation of the Operative Indications and Results in the Fenestration Operation for Otosclerosis.* EDWARD H. CAMPBELL, Philadelphia. *Archives of Otolaryng.*, 1950, lii, 513.

It was observed by the author that the improvement in hearing was almost as good in cases with poor bone conduction at 2048 as it was in those cases with normal pre-operative bone conduction at 2048, 21 as compared to 24.5 decibels. Speculation is made on the reasons for this comparison. It seemed probable that tinnitus near the pitch of the 2048 frequency masked the reception of the audiometric tone in some cases. It seemed probable also that a combination of factors that are not well understood could influence the bone conduction at 2048 to give a reading that is not truly representative of the auditory nerve function at this level. A conclusion that might be drawn is that a considerably reduced bone conduction at the 2048 frequency level does not necessarily indicate auditory nerve degeneration at that level and does not necessarily give a bad prognosis so far as the results of the fenestration operation are concerned.

R. B. LUMSDEN.

## LARYNX

*Partial horizontal laryngectomy.* LOUIS LEROUX and MASPETIOL, Paris. *Annales d'Oto-Laryngologie*, 1950, lxvii, 663.

The authors describe, with some good illustrations, the technique of a partial "horizontal" laryngectomy, designed to deal with ulcerative cancers of the foot of the epiglottis. The vocal cords are thus preserved, so that phonation and laryngeal respiration are unaffected. It is true that Leroux-Robert has shown that cancers in this area do not invade the anterior commissure, but it may be justifiably argued that they are usually radiosensitive. If the radiotherapist feels that a particular tumour of the epiglottis is beyond his scope, it will probably be wiser to contemplate laryngectomy than half-measures.

R. SCOTT STEVENSON.

## PHARYNX

*Pharyngeal Diverticula.* V. E. NEGUS, London. *British Journ. Surg.*, 1950, xxxviii, 129.

In this article the author develops the thesis that a pharyngeal diverticulum in its early stages is the result and not the cause of dysphagia. In most animals the fibres of the constrictors are arranged in a circular manner; in man they are oblique, due to the descent of the larynx in the neck. The function of the cricopharyngeal sphincter, by remaining contracted except when a bolus of food is passing, is prevention of œsophageal respiration, which is of importance especially in mammals of arboreal habit which make use of their forelimbs in climbing. If the glottis is closed at the commencement of an effort with reduced pressure in the thorax there is a tendency for air to be sucked into the œsophagus. A powerful sphincter is, therefore, required. Man is of arboreal descent

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and uses the forelimbs for grasping, and he has a powerful sphincter at the mouth of the œsophagus which is partially attached to the back of the cricoid cartilage. The opening of the mouth of the œsophagus is therefore more restricted than in most mammals.

The obliquity of the inferior constrictor and the horizontal direction of the cricopharyngeus cause an unsupported area to be left in the posterior wall. During swallowing the gap tends to become more extensive owing to the upward movement of the pharynx and larynx. Chronic hypopharyngitis may lead to lack of relaxation of the sphincter, or healed inflammatory lesions of the cricopharyngeal fold may lead to contraction and stenosis at the mouth of the œsophagus with dysphagia and sometimes to the formation of a pouch. Some patients have excessive contraction of the sphincter without obvious cause; lack of relaxation at the right time in the second stage of swallowing may be due to deficiency in the sensory stimuli. The bolus cannot move forward because of the larynx, nor laterally because of the resistance of the inferior constrictor, nor upwards because of the contracted inferior constrictor, while its downwards passage is halted because the mouth of the œsophagus is closed. The posterior gap, therefore, takes the force and bulges.

The article concludes with a review of the different methods of treatment. When the pouch reaches the mediastinum external operation is required, and the sooner the better. Penicillin is given for three days, and sulphathiazole for five days, post-operatively. The feeding tube is removed on the ninth day. The value of post-operative dilatation is stressed.

F. BOYES KORKIS.

### ŒSOPHAGUS

*Oesophageal Foreign Body Precipitating Dissecting Aortic Aneurysm.* E. H. HADFIELD, Oxford. *British Medical Journal*, 1950, ii, 1477.

A woman, aged 44, was admitted to hospital with a history of having swallowed a fish-bone, followed by severe substernal pain; she vomited twice on her way to hospital, on the second occasion the vomit consisting of some frothy blood-stained fluid containing two small fish-bones. Oesophagoscopy was performed under general anæsthesia about half-an-hour after admission, and a vertical superficial laceration about 1 cm. in length was found to be present on the right postero-lateral wall of the œsophagus at 37 cm. from the incisor teeth; no foreign body was found. The patient was given soluble sulphadimidine, 1 gramme four-hourly, by injection, and nothing by the mouth for eight hours. The substernal pain persisted after the examination, though recovery from the anæsthetic was normal, and early next morning she became cyanosed over the face, neck and chest, while the pain shifted to the epigastrium. There was no evidence of an acute abdominal condition or of respiratory failure, and it was decided that the patient was suffering from a cardiac failure. Two days later she died suddenly just as an examination was about to be made of her heart. Post-mortem examination revealed spontaneous rupture of the aorta with dissection and eventual rupture into the pericardium, causing hæmopericardium and death; there was superficial laceration of the posterior wall of the œsophagus.

R. SCOTT STEVENSON.

# Œsophagus

*Gummatous Infiltration of Oesophagus resembling Carcinoma.* STANLEY O. AYLETT, London. *British Medical Journal*, 1950, ii, 1476.

The author reports the case of a man, aged 77, with a five-months' history of increasing difficulty in swallowing solid food. X-ray examination showed "undoubted carcinoma of lower third of the œsophagus", and he was admitted to hospital for œsophagoscopy and biopsy. The patient was very frail and there was a technical failure at the time of instrumentation, so it was abandoned. Radical resection was not possible and he was considered unlikely to benefit from irradiation. But in the next few months the patient's condition did not deteriorate, so he was re-admitted for œsophagoscopy and a granular area at the lower end of the œsophagus was observed. Biopsy from this area revealed no carcinoma, and in view of a very strongly positive W.R. the patient was put on iodides. Within a short time his swallowing improved dramatically and at the age of 79 he now eats any food without difficulty and is in very good health.

R. SCOTT STEVENSON.

## MISCELLANEOUS

*Cavernous Sinus Thrombosis and Orbital Phlegmon: Changes in Surgical Indications through the New Chemotherapy.* R. ALBRECHT. *Zeitschrift für Laryngologie, Rhinologie, Otologie*, 1950, xxix, 512.

A short review of the German literature covering the last ten years shows that the sulpha-penicillin treatment has markedly improved the prognosis of this hitherto fatal condition. The indications for operation are discussed. When the primary focus is in the ear or sinuses, this is readily dealt with, but when it comes to removal of the eyeball, reluctance to operate is understandable.

Histological examinations by the author show that orbital infections giving rise to cavernous sinus thrombosis fall into two anatomico-pathological groups: the diffuse interstitial, and the primary thrombo-phlebitic orbital phlegmon. These groups, while clinically similar, demand quite different treatment. Interstitial phlegmon usually arises from sinus disease, and takes time to develop. Incision of the peri-orbita and drainage of retained pus may be sufficient. Enucleation of the eye is required only if there is established panophthalmia or deep thrombosis. Primary thrombo-phlebitic orbital phlegmon is caused by furuncles of the face; the infection passes by way of the orbital veins, and in severe cases can reach the cavernous sinus in a matter of hours. Penicillin is unable to reach the deeper parts of the thrombi; removal of the eye is then necessary as the only means of cutting the organism-bearing venous pathways.

D. BROWN KELLY.