

Abstracts

with no pulsation, but puncture of the brain was negative. The roof of the ethmoidal area was then removed and found to be undamaged. A further exploration made at the base of the brain revealed a large abscess over the sphenoidal area, which was therefore drained.

After a temporary improvement the condition gradually became rapidly worse and the patient died on *April 25th*.

Post mortem Examination.—Circumscribed meningitis at the base of both frontal lobes and a large abscess in the *left* frontal lobe, whilst further examination of the nose revealed a splinter of wood 1 cm. long and 2 mm. broad beneath the mucous membrane of the septum and immediately in contact with the lamina cribrosa, and yet another piece in the left frontal sinus.

The Exhibitor pointed out that it was remarkable that there had been no other symptoms of the lesion on the left side, except the dilatation of the left pupil and some tenderness over the left temporal area.

The Discussion turned on the desperate prognosis in these cases and suggestions by way of reconciling the symptomatology with the results of the *post mortem* examination were made.

ABSTRACTS

EAR

The Acoustic Function in Choked Labyrinth. DIDA DEDERDING.
(*Acta Psychiatrica et Neurologica*, 1933, viii., 165.)

Dederding remarks that little attention has been paid to changes of hearing in brain diseases. It is generally said that there are some changes in high tone perception, even when low tone deafness is also present. It is generally said, also, that when there is a lesion of the labyrinth, auditory nerve, or medullary nuclei there is a loss of high tones, whereas in affections of conduction there is deafness for low tones.

In her own series of cases she has found that in true affections of the perceptive mechanism, such as senile deafness and some, but not all, cases of neuro-syphilis there is pure high tone deafness, but in the majority of labyrinthine cases the first loss of hearing is to the low tones. This she attributes to the fact that a rise of pressure in the labyrinth fixes the fenestrae from within, just as the organized exudate of a middle-ear suppuration fixes them from without.

In fourteen cases of nuclear lesions high tone deafness was found in all; in only two was there any low tone deafness. In all other

Abstracts

neurological cases, tumours, encephalitis, etc., pure high tone deafness was very rare. High tone deafness combined with low tone deafness was frequent, but usually in the later stages; the first manifestation of deafness was for the low tones. This Dederding believes is due to "choking" of the labyrinth, with an increase of labyrinthine pressure. This increase of pressure would also account for the exception to Waller's law noticed in the auditory nerve. In cases of acoustic tumour the nerve endings and fibres degenerate peripherally, while the ganglion is still intact. This "anti-Wallerian" degeneration is thus due not to pressure on the fibres by the tumour, but to pressure on the endings owing to interference with the normal fluid excretion from the labyrinth. The suggestion that raised intracranial pressure can cause a "choked labyrinth" as well as a "choked disc" was made by Alexander and Fischer some years ago, but this application of it is new and valuable. It may even be possible to use the increasing loss of auditory function as a measure of the rise of pressure, just as we now use the degree of swelling of the disc.

F. W. WATKYN-THOMAS.

Pressure on the Jugular Vein and its Clinical Application.

O. MUCK. (*Zeitschrift für Hals-Nasen-und Ohrenheilkunde*, 1934, 35 Band, 3 Heft., 362-4.)

The author points out an addition to the sign of loss of venous hum over a blocked jugular vein in cases of otitic septicæmia.

The venous hum, normally heard over the jugular vein above the clavicle, can be accentuated by forcibly pressing the head laterally so as to compress the other jugular vein. If this increased hum is heard over the normal side by so compressing the suspected jugular vein, there is no blockage. Disappearance of this hum, confirmed by daily observation, is an indication for operative treatment. This sign is most useful in patients up to 40 years of age. The uncertainty of its application in cases of intra-mural clot is pointed out.

H. B. LIEBERMAN.

Complete bilateral loss of function of the Eighth Nerve following Fracture of the Base of the Skull. B. SZENDE. (*Acta Oto-Laryngologica*, xix., fasc. 4.)

Complete bilateral nerve deafness following fracture of the base of the skull is a rare event. The case reported here was that of a youth, 19 years of age, who received a severe blow on the forehead which rendered him unconscious for ten days. On regaining consciousness he was found to be totally deaf in both ears. At first the slightest movement caused vertigo and vomiting, but these symptoms of vestibular irritation had almost completely subsided when the

Ear

author first examined him, five weeks after the accident. There were then complete deafness and absence of caloric reactions in both ears. Skiagrams showed fracture lines passing through the petrous bones on both sides. The auditory and vestibular nerve apparatus had evidently been destroyed, but the facial nerve on each side still retained its function. It was fortunate that the lines of fracture did not pass through the middle ears, as both ears had been affected with chronic suppurative otitis media for many years. Reproductions are given of several skiagrams, showing the lines of fracture.

THOMAS GUTHRIE.

Primary Tuberculous Otitis with Meningitis. S. KREPUSKA. (*Acta Oto-Laryngologica*, xix., fasc. 4.)

Tuberculous infection of the middle ear frequently occurs in phthisical subjects with tubercle bacilli in the sputum: these enter the tympanic cavity through the Eustachian tube. In young children infection takes place by the same route during vomiting. More rarely the temporal bone and middle ear become infected by the hæmatogenous route, as a result of similar disease in the vascular system and lymphatic glands. In all these cases the ear disease is *secondary* to tubercle elsewhere in the body. In the presence, however, of an open perforation of the tympanic membrane due to suppurative otitis media, there is a possibility of a *direct* infection of the middle ear with tubercle bacilli, introduced into the external meatus with an infected finger or by an instrument, such as the unsterilized nozzle of a syringe. In this case we may speak of a *primary* tuberculosis of the temporal bone.

In the Author's case, a male infant, 11 months old, an otitis media was followed by a tuberculous middle-ear infection, which entered either through the external meatus, or by the Eustachian tube during vomiting. Death occurred from meningitis, and a complete histological and bacteriological examination showed extensive tuberculous disease of the middle and inner ear, and of the meninges, but no sign elsewhere in the body of either tuberculous disease or noteworthy pathological change of any other kind. The case is, therefore, to be regarded as one of primary tuberculosis of the ear.

Reproductions are given of several of the serial sections which were made of the temporal bone.

THOMAS GUTHRIE.

The Surgery of the Cervical Sympathetic in relation to the Organ of Hearing. PROF. FEDERICO BRUNETTI. (*L'Oto-rino-laringologia Italiana*, July, 1933.)

The author reviews the literature on this subject. He quotes cases in which patients who have undergone cervical sympathectomy

Abstracts

for epilepsy and for exophthalmos have experienced improvement in their hearing. Brünings has reported a case in which tinnitus disappeared after such an operation. Many writers have reported increased vascularisation. Rudakov described a case of otosclerosis treated in this way, but the tinnitus increased and the hearing diminished. Other authors describe similar results and Hesse gives experimental reasons why sympathectomy is inadvisable in otosclerosis.

Other experimental work has shown changes taking place in the Eustachian tube and in the vascularisation of the internal ear. Sympathectomy reduces or abolishes the central vaso-constriction and the peripheral vaso-dilatation that normally occurs after labyrinthine destruction.

Ferreri reported a case of Graves' disease with such severe tinnitus that suicide was contemplated. Bilateral sympathectomy reduced the tinnitus and improved the general condition. Calogero reported another case of deafness and tinnitus in which sympathectomy had no effect on the deafness but in six months had completely cured the tinnitus. Before operation, pressure on the second and third divisions of the fifth cranial nerve produced an increase in the amount of tinnitus, but after operation such pressure had no effect. Grahe and Cantele have shown that sympathectomy decreases the frequency, shortens the duration, and lengthens the latent period of nystagmus during the caloric tests. It also reduces the response to rotation. Sympathectomy offers an alternative to the very delicate operation of Sourdille on the external canal, to the operation of Portmann on the saccus endolymphaticus, or to extirpation of the labyrinth. It is contraindicated in otosclerosis, it does not always improve hearing, but it does tend to abolish the tinnitus. The improvement attained appears to be permanent. One patient, however, who had suffered from attacks of the Ménière type, experienced, after the sympathectomy, most severe symptoms of vertigo and headache for a week, after which they disappeared, but a month later he suffered from a most violent attack of vertigo.

There is obviously still a great deal to be learnt about the function of the sympathetic nerve supply of the internal ear, and much scope for a comprehensive investigation.

F. C. ORMEROD.

Diffuse Purulent Orogenous Meningitis with Paralysis of the Facial Nerve on the Healthy Side. J. LASSKOFF (Vestnik Sovietskoi, O.R.L.). (*Revue de Laryngologie*, 1934, lv., 402-3.)

As a general rule the combination of symptoms in otogenous meningitis makes it easy to decide which ear is the focus of infection. Sometimes, however, the combination of symptoms is such as to make the differential diagnosis between the two sides very difficult.

Ear

In Lasskoff's case the patient was unconscious when admitted to hospital; there was a right sided facial paralysis, the right membrane was scarred, there was discharge from the left ear, both mastoids were tender, and there were signs of general diffuse meningitis.

In spite of the right sided facial paralysis, on the evidence of the otoscopic appearances, the left mastoid was opened and drained. On the following morning the patient recovered consciousness, and the facial paralysis cleared up completely in one month. Lasskoff regards the contralateral facial paralysis as a toxic effect, but he suggests that it may have been due to pus passing over the cerebellum to the opposite side. In view of the patient's recovery without any further operation this seems unlikely. He rightly insists on the necessity of operating in these cases, however desperate the patient's condition may seem. Even if the patient is moribund the chance that operation gives should not be withheld.

F. W. WATKYN-THOMAS.

A Clinical Study of Sinus Thrombosis of Otitic Origin. M. ELIASSON.
(*Revue de Laryngologie*, 1934, lv., 202-29.)

Eliasson describes a series of 117 cases of sinus thrombosis and four cases of otogenous pyohæmia without thrombosis, which were treated in Professor Lévin's clinic between 1925 and 1932. Thrombosis in acute cases: Twenty-nine men, nine fatal cases (31%). Twenty-six women, seven fatal cases (27%). In chronic cases: forty men, twenty fatal cases (50%), twenty-six women, eight fatal cases (29%). The majority of cases occurred during the second and third decades (90 cases out of 121).

The paths of infection were as follows:

1. Four cases of pyæmia without thrombosis.
2. One hundred and one cases in which the bone and the sinus wall were both affected.
3. Six cases in which no alteration was found either in the bone or in the sinus wall. (Here the route of infection was probably by thrombosis of small vessels entering the sinus. In one case the entry was proved to be by an emissary vein, in another by a dural vein.)
4. Six cases in which the bone was infected without obvious change in the sinus wall.
5. Four cases in which the sinus wall was obviously infected without any visible change in the surrounding bone.

The symptoms noticed were those generally recognized, but there was a small group (four cases) without fever. Rigors were seen in sixty-three cases. Metastases were present in thirty-eight cases. Of sixteen cases with pulmonary metastases twelve were fatal. Of sixteen cases with joint metastases only, three patients died.

Abstracts

It is interesting to note that in two cases there was a central perforation of the membrane, a condition usually believed to be harmless. Particular attention is paid to tenderness along the jugular, but it is admitted that this is usually due to a lymphangitis.

Queckenstedt's test was applied in twenty-two cases, and was positive in eighteen. Seven cases of cavernous sinus thrombosis occurred, five of them associated with lateral sinus thrombosis, and probably due to retrograde thrombosis along the petrosal sinuses. One was caused by apical suppuration of the petrous, and one by infection of the carotid venous plexus. In three cases of thrombosis of the jugular bulb, lesions of the posterior nerve group were seen. In one of these there was paralysis of the tongue, wasting of the shoulder muscles, and difficulty in swallowing. At operation a peri-bulbar abscess was found. The patient recovered.

The writer advises complete operation, removal of the clot, and he usually ties the jugular vein. In the fatal cases, forty-four in all (36·3%), death was due in twenty-one to meningitis, in nineteen to septicæmia, and in four to other causes.

F. W. WATKYN-THOMAS.

LARYNX

An attempt at the treatment of certain forms of Tuberculosis of the Larynx by Hemilaryngeal "Collapse-therapy" brought about by Alcoholization of the Recurrent Nerve. P. VERNIEUWE. (*Revue de Laryngologie*, 1934, lv., 341-6.)

Immobilization of a tuberculous lung by phrenectomy or artificial pneumothorax is a well established method of treatment, but little has yet been done to apply the same principles to the larynx beyond the necessarily imperfect rest afforded by silence. Attempts have been made to immobilize the larynx by tracheotomy and so to aid the cicatrization of the lesion, but the number of successful cases has been too small to be encouraging and, except in cases of actual stenosis, the method has been abandoned.

In one case Vernieuwe has immobilized one side of the larynx by alcohol injection of the recurrent laryngeal nerve. The patient was a woman of 25 with dysphonia and hoarseness, pain reaching the ear, and severe dysphagia. There was œdema and ulceration limited to the left cord. There was no spread into the arytenoid region.

Under local anæsthesia the carotid sheath was exposed, and the vessels and vagus were drawn outwards. The inferior thyroid artery was divided between ligatures and the left recurrent laryngeal nerve was exposed, lying on the œsophagus in the groove between the œsophagus and the trachea. The nerve was easily recognized by its position and by the anastomotic branches to the sympathetic

Larynx

plexus behind the vessels. The nerve was then isolated and one drop of alcohol was injected into the sheath.

The wound was sutured in layers and closed without drainage.

There was immediate paralysis of the left cord in the paramedian position. The paralysis remained for three months, and the voice then recovered completely. The ulcer was healed within three weeks of the operation.

Encouraging though this case has been, Vernieuwe points out that the indications for the operation are most strictly limited :

1. There must be a unilateral lesion.
2. There must not be any perichondritis.
3. There must be no interarytenoid disease, as this region would not be immobilized by the collapse of one cord.
4. There must already be hoarseness, or the operation will make phonation worse.
5. There must be dysphagia.

The general condition of the patient is no contraindication. In this case the patient was in a very poor state and the relief of pain and dysphagia greatly improved her.

F. W. WATKYN-THOMAS.

Roentgen Therapy in Laryngeal Tuberculosis. G. FERRERI. (*Revue de Laryngologie*, 1934, lv., 326-40.)

The paper begins with a short summary of the history of radiation treatment of laryngeal tuberculosis. Ferreri concludes that ultra-violet light treatment, although helpful, has not yet solved the problem ; in fact " cure due exclusively to the action of ultra-violet rays is very rare, if not impossible ".

Roentgen therapy for tuberculosis began in 1898, when Kupperle and Bachmeister first studied the action of the rays on tuberculous lung tissue. Richmann, by a series of biopsies made before and after treatment, has demonstrated the intense new formation of connective tissue which can shut off and strangle the tuberculous lesion.

The great difficulty in applying the treatment has always been to define the precise indications. It is generally agreed that the catarrhal and non-ulcerated hypertrophic forms of the disease respond well to the X-rays, but there is absolute disagreement as to the utility, or even the safety, of using X-rays in the ulcerated and œdematous lesions. The general opinion in Denmark and Germany is strongly opposed to Roentgen therapy in this second group. Ferreri admits that the best results are obtained in the hypertrophic and infiltrating cases, but he lays stress on the hyperplastic reaction and the new formation of connective tissue produced by the rays, rather than on their destructive action, which he believes can be avoided by proper " fractioning " of the dose.

Abstracts

His own cases have been treated by Milani and Belluci under the following technique: distance F.P. 24 cm.; 155 k V; Ma 2; F. 3, 4I. Two lateral cervical fields and one median of 6-8 cm., 1.7 per field. The lateral fields are irradiated at the same sitting, the median field four days later. This constitutes one "series"; the three first "series" were given at monthly intervals, the later ones at longer intervals still.

The greater number of Ferreri's cases had infiltrating tuberculosis, usually limited to the cords or to the posterior part of the larynx, and it was with these patients that the best results were obtained. When ulceration was present cure could not be expected, but usually there was considerable relief of pain and dysphagia.

In all, twenty-five patients were treated. Six were cured, twelve improved, three remained unchanged, two got worse, and two died. In neither of the fatal cases was there any local aggravation; death was entirely due to the rapid advance of the lung condition.

F. W. WATKYN-THOMAS.

ŒSOPHAGUS AND ENDOSCOPY

Deviation of the Œsophagus in Pleuro-Pulmonary Tuberculosis and in Collapse-therapy of the Lung. V. TANTURRI and M. LUCIONI. (*Revue de Laryngologie*, 1934, lv., 273-325.)

The authors remark that in cases of pulmonary tuberculosis in which the pleura is affected, and after the therapeutic "collapsing" of the lung by artificial pneumothorax, it is not uncommon to find dysphagia, nausea, and vomiting, which cannot be accounted for by any condition of the larynx or pharynx or by any toxæmic state of the patient. It has long been recognized that comparatively small pleuro-pulmonary lesions, such for instance, as a unilateral apical sclerosis, can cause considerable displacement of the intra-thoracic organs. But, although a great deal of work has been done on the resulting deformities of the trachea, little attention has been paid to similar derangements of the œsophagus.

In this paper Tanturri and Lucioni give an account of the radiological findings in twenty-one cases of pulmonary tuberculosis. Among the patients all stages of the disease were represented. In four cases a phrenectomy had been done, in nine a pneumothorax (including one oil-displacement), and in one phrenectomy and pneumothorax were combined. The writers did not think it justifiable to carry out endoscopy in any of the cases. They summarize their results as follows:

1. In pleuro-pulmonary tuberculosis and in collapse-therapy ("collapso-thérapie") of the lung we often notice œsophageal deviations;

Œsophagus and Endoscopy

2. In the majority of cases the deviations are partial and are placed at the upper part of the thoracic œsophagus. At times, however, the deviations may as exclusively affect the lower part of the thoracic œsophagus or even the sub-diaphragmatic portion ;

3. The œsophageal deviations may be sub-total, that is to say affecting nearly all the œsophagus ;

4. In sub-total deviations, especially in those to the left, the œsophagus shows relative fixation at the level of the broncho-aortic constriction ;

5. In pulmonary-pleural tuberculosis, the œsophageal deviations should be attributed to the fibrosing process ;

6. In addition to the deviations, deformities and diverticula of the œsophageal wall are found ;

7. In pneumothorax therapy the origin of the œsophageal deviations is in relation to the pull of the healthy lung or the pressure of the gaseous collection, or both together ;

8. At the end of pneumothorax treatment the œsophagus returns to its normal position, or may even be pushed over to the affected side ;

9. The displacement of the œsophagus which occurs during a pneumothorax and the return of the œsophagus to its normal position at the end of the treatment are governed by the condition of the mediastinum ;

10. There is no relation between the œsophageal and tracheal deviations ;

11. The clinical signs of the œsophageal deviation are nearly non-existent ;

12. In many cases a study of the œsophageal deviation makes it possible to form an opinion on the preceding pathological stages of the pleuro-pulmonary condition.

The paper is illustrated by twenty-seven skiagrams and has a useful bibliography.

F. W. WATKYN-THOMAS.

Congenitally short Œsophagus with Ulcus Pepticum Œsophagi.

I. L. HARVEN and P. G. GERLINGS. (*Acta Oto-Laryngologica*, xix, fasc. 4.)

One form of " thoracic stomach " is due to congenital shortness of the œsophagus, of which a number of instances have been recorded. Brown Kelly was the first to observe that, in certain cases of congenital stenosis of the œsophagus, the opening from the œsophagus into the stomach lay immediately below the stenosis, and that a dilated portion, between the stenosis and the diaphragm, was lined by gastric mucous membrane and was, in fact, a " partial thoracic stomach ".

Abstracts

In the present paper a case is reported of this condition in a girl three years of age, associated with a peptic ulcer of the œsophagus immediately above the stenosis. In one of Brown Kelly's cases also there was a peptic ulcer situated 2 cm. above the stenosis.

THOMAS GUTHRIE.

MISCELLANEOUS

A Contribution to the Study of Congenital Fistulae of the Neck.
RAOUL and CARLOS BERGARA. (*Annales d'Oto-Rino-Laryngologia del Uruguay*, 1933, ii., 116.)

The congenital fistulae of the side of the neck are usually classified as follows :

[1] The most frequent are those with an external orifice in the side of the neck below the hyoid, an ascending track and an internal opening in the tonsillar fossa.

[2] Those with an external infra-hyoid opening, a horizontal track, and an internal opening in the pharyngeal wall.

[3] Those with an external infra-hyoid opening and a descending track into the mediastinum.

[4] The auricular and preauricular fistulae. The case described by the writers is that of a girl of 21 with a complete auriculo-hyoid fistula. This is the rarest variety of Group [4]. Moatti (1929) could find only eight recorded cases (1) Virchow's case, a fistula from the auricle to the neighbourhood of the pharyngeal orifice of the Eustachian tube; (2) Koenig's case, an orifice between the tragus and anti-tragus and a track to the angle of the jaw; (3) Harding's case, a track from the hyoid region to the posterior meatal wall; (4) Riedel's case, a track from the angle of the jaw to the middle ear; (5) Flint's case, a track from the posterior border of the sterno-mastoid to the angle of the jaw with a "cord" to the external auditory meatus; (6) Kuttner's case, a track from the external auditory meatus to the parotid. The cases described by Fournier (7) and Cauchoix (8) resemble Koenig's case.

In the present case a complete track passed from the anterior edge of the sterno-mastoid in the hyoid region to a depression in the floor of the middle third of the external auditory meatus. By careful dilatation with bougies it was found that the track was patent through its whole length, and this was confirmed by injection with a radio-opaque oil and skiagrams. One of these skiagrams is reproduced and shows the full extent of the fistula.

The condition was cured by injections of Morestin's fluid into the sinus. This consists of formol, tricresol, alcohol, glycerine and novocaine. A previous attempt at surgical excision had failed.

F. W. WATKYN-THOMAS.

Miscellaneous

Clinical Experiences with Evipan-Natrium Anæsthetic.

R. PERWITZSCHKY. (*Zeitschrift für Hals-Nasen-und Ohrenheilkunde*, 1933, 33, 382-90.)

Evipan-Natrium is a barbituric acid preparation which gives, in a few minutes, a short period of complete anæsthesia. Pre-operative morphia and hyoscine are advised. For an adult of 75 kilogrammes (11 st. 11 lb.) 10 c.cm. of the 10 per cent. solution is injected intravenously very slowly, at the rate of 1 c.cm. in ten seconds. If the solution is given too quickly a fine tremor of the whole body occurs. Usually the patients, even alcoholics, are drowsy in thirty seconds and asleep during the injection of the last 2-3 c.cm.

During the anæsthesia the pulse and blood pressure remain steady, but the respiratory rate is rapid and shallow. The pupils are of moderate size and do not react to light. The air-way must be kept clear as the tongue has a tendency to fall back. Deep anæsthesia lasts twenty minutes, after which operative interference causes reactionary movements of which the patients have no recollection when conscious; at the end of one hour consciousness is completely restored, with no post-operative sickness, although short periods of delirium may occur. For operations over twenty minutes a little ether must be employed. For toxic patients only 7 to 8 c.cm. should be used; for children over 5 years only 2 to 3 c.cm. If intravenous injection is difficult in children, up to 6 c.cm. can be given intramuscularly, but both the stage of anæsthesia and the period of recovery are delayed. The drug has not been used in very young children. The authors prefer Evipan to Avertin.

With Avertin the anæsthetic stage is reached in thirty minutes and full recovery is attained in four to five hours, the corresponding figures with Evipan being five to six minutes and one hour. With Evipan there is not the same need to combine the anæsthetic infiltration with anæsthesia. The drug is most suitable for short operations but not for tonsillectomy, as the cough reflex is delayed.

The authors themselves have had no deaths, but a review of the literature shows three deaths—all occurring in laparotomies on women—in a series of 10,000 cases.

H. B. LIEBERMAN.