

flatter, therefore broader, whilst injections into the aryepiglottic folds increase its backward curvature, producing the infantile type of epiglottitis.

The ventricular bands cannot be so easily injected as the aryepiglottic folds, but they can be injected to some extent; they swell towards the lumen of the larynx, also into the roof and the upper lip of the ventricles of Morgagni.

Fluid injected into the upper surface of the true cords, just in front of the vocal processes, readily spreads forwards; under greater pressure it spreads outwards into the floor and outer wall of the ventricles; whilst under still greater pressure it filters through the whole thickness of the cord, finally producing subglottic as well as glottic swelling. In the same way, fluid injected into the under-surface of the vocal cord produces first subglottic swelling, but under increased pressure permeates the whole thickness of the cord. It does not tend to spread down into the trachea.

The results obtained by Turner practically agree with those of Hajek. The paper is illustrated with several clear plates.

Arthur J. Hutchison.

E A R.

Caboche, H.—*Cerebral Hernia following Operations in the Middle Ear.*

“*Annales des Maladies de l’Oreille, du Larynx, etc.*,” No. 4, April, 1902.

Precautions to be observed :

1. Cleanliness, careful daily washing.
2. Suture of dura mater when this has been opened.
3. A large opening, to prevent retention of pus, which is an important cause of cerebral prolapsus.

Luc recommends a crucial incision in the cerebral substance with the galvano-cautery. MacEwen believes this procedure is wrong; he considers it would soften the nervous tissue and so tend to produce hernia.

Treatment.—Nitrate of silver, collodion, absolute alcohol, perchloride of iron, and caustic potash; igni-puncture, forcible compression, elastic ligature, a plastic operation and removal of tumour. These have all been tried, but usually the condition cures itself, if assisted by moderate compression and cleanliness.

Anthony McCall.

Coussieu, Henry.—*Researches on the Bacteriology of Middle-Ear Disease.*

“*Annales des Maladies de l’Oreille, du Larynx, etc.*,” No. 5, May, 1902.

Dr. Coussieu emphasizes the importance of having the external auditory meatus quite aseptic before perforating the membrane. For this purpose he recommends a bath of equal parts alcohol and ether, to be applied for about ten minutes, then a warm antiseptic wash, followed by one of sterilized water, to remove all trace of the antiseptic, after which the passage is to be thoroughly dried with sterilized cotton-wool. No local anæsthetic is used.

The patient is placed in a recumbent position, the pain of the incision as well as the possibility of syncope being thus lessened.

The contents of the middle ear are then to be removed by a pipette or aspirator and cultures made.

The author has examined twelve cases with the following results: In 2 cases streptococci were found; in 3 staphylococci; in 2 pneumococci; and in 5 mixed micro-organisms were present.

As a result of these researches he concludes:

1. Otitis media following an infectious malady is generally monomicrobial, and if suppuration ensues, which it does not usually do, it has only a short duration.

2. If several forms of microbes are found in the beginning of the disease, it will probably follow a chronic course. *Anthony McCall.*

Jürgens (Warsaw).—*Bleeding from the Jugular Bulb after the Application of Strong Caustic to the Ear*, probably in order to escape military service. "Monatschrift für Ohrenheilkunde," April, 1902.

The drumhead and ossicles were destroyed and the inner wall of the tympanum was bare of mucous membrane and as white as chalk. Hæmorrhage was rapid, the blood flowing in a dark smooth stream as of some oily liquid. It was easily controlled by plugging. A probe could be passed through a hole in the floor of the tympanum into the jugular bulb. In spite of careful asepsis an attack of pneumonia supervened, but the patient recovered and was dismissed in five weeks with the external parts of the ear healed, the labyrinth wall remaining *in statu quo*. Bone and air conduction were abolished on the injured side. *William Lamb.*

Melzi, Urbano (Milan).—*The Use of Gum Elastic Sounds in Chronic Catarrhal Affections of the Eustachian Tube and Middle Ear*. "Archives Internationales de Laryngologie, etc." No. 2, March-April, 1902.

The author draws attention to the fact that 66 per cent. of the cases suffering from middle-ear catarrh have nasal obstruction as well, and 46 per cent. of those suffering from nasal catarrh have also middle-ear catarrh.

He recommends progressive dilatation of the Eustachian tube by sound and catheter. Ménière has graduated sounds, which Dr. Melzi used, and with which he obtained much better results than he could have got by simple catheterization.

An interval of two days was allowed to elapse between each séance. The smallest size sound was first used, dipped in a 10 per cent. solution of cocaine before insertion, then withdrawn and dipped in a solution of iodine and again inserted.

Three cases are quoted in which this treatment has been tried, and the results have been quite satisfactory, even after the lapse of several months. *Anthony McCall.*

Pick (Vienna).—*Radical Operation performed by Nature for Chronic Suppurative Otitis Media*. "Monatschrift für Ohrenheilkunde," April, 1902. (Cases from Practice.)

Almost all the posterior bony wall of the meatus came away as a sequestrum, partly exposing the antrum, while the anterior part of the tympanum was left. The otitis was of eighteen months' duration, and dated from an attack of pneumonia.

Cyst of Tympanum.

A phthisical boy of eight had otorrhœa of six years' duration, dating from an attack of diphtheria. The malleus had come away, and there was a scar on the mastoid. A soft, bluish-red, irregular elastic swelling, about the size of a bean and covered with smooth epidermis, filled the deeper part of the meatus. It resembled an exposed jugular bulb, but it was not affected by pressure on the vein in the neck, and it did not pulsate. It shrank rapidly under the use of spirit-drops. Puncture showed the contents to consist of turbid yellowish-brown serous fluid, cells full of fat granules, cholesterin crystals, red-blood discs, but no pus cells.

William Lamb.

Williams, Cornelius (St. Paul, Minnesota).—*The Treatment of Chronic Suppuration of the Middle Ear and Mastoid Antrum.* "The St. Paul Medical Journal," March, 1902.

The author describes at length the usual treatment of suppurative otitis, which he considers may be regarded as chronic when it has existed three months. In his experience disease of the temporal bone exists in at least 99 per cent. of the cases of chronic otorrhœa. He notes that in some cases the hearing after the radical operation is remarkably good; in one of the cases the watch could be heard at 30 inches, though the membrana tympani and ossicles had been removed.

St George Reid.

THERAPEUTICS.

FRIEDRICHSHALL WATER—ANALYST'S REPORT.

WE have received samples of Friedrichshall mineral water, and have submitted them to our analyst, who reports as follows :

The samples of Friedrichshall mineral water supplied by Mr. Geo. Greiner, of 10, Milton Street, London, E.C., are found to be free from suspended matter, from any traces of poisonous metals, and of high organic purity.

The taste is strongly saline, as would be expected from the nature and amount of the mineral constituents present in solution.

The results of the analysis of the saline matter in the water are shown in the accompanying table, but it must be understood that the proportions of the various salts are only arrived at by the usual conventional method of allotting the strongest acid to the strongest base. According to modern views the salts, as such, do not exist in solution at all :

	Grains per Pint
Sodium sulphate 	119·17
Sodium chloride 	14·43
Sodium nitrate	·05
Calcium chloride 	3·30
Magnesium chloride	93·83
Silica 	·20
Oxides of iron and alumina	traces

Such a water would have the therapeutic effects of a mixture of the chlorides of sodium and magnesium with the sulphates of the same metals, and the statements made as to the composition and the medicinal