given without exception in the case of an infected "contact" who presents any, even slight, indication of faucial, nasal, or laryngeal inflammation. *Macleod Yearsley.*

NOSE, Etc.

Lautman.—*The Rhinological Treatment of Dysmenorrhœa according to Fliess.* "Annales des Maladies de l'oreille, etc.," September, 1903.

Fliess has pointed out that the genital points in the nose are the tuberculum septi and the anterior head of the inferior turbinate. The application of cocaine to these points during menstruation in many cases is followed by an amelioration of pain; the pain in the sacrum is relieved by touching the tuberculum septi, that in the hypochondrium by touching the head of the inferior turbinate.

The author quotes several cases which confirm Fliess' deductions, and recommends in all cases to try the effect of cocaine before using the cautery. *Anthony McCall.*

De Champeaux.—*The Cure of Tic Douloureux.* "Archives Internationales de Laryngologie, etc.," July—August, 1903.

The author reports the case of a woman who had suffered from facial neuralgia for several years, and who had undergone several forms of treatment without success. From the presence of crusts in the nose, and the expression of the face, he suspected the presence of adenoids; on these being removed the rhinitis as well as the tic douloureux were cured. *Anthony McCall.*

EAR.

Kerrison, Philip D.—*The Limits of Variation in the Depth of the Mastoid Antrum.* "Arch. of Otol.," vol. xxxii, No. 3.

The difference in the measurements given by various observers seems to depend mainly on the point from which they take these measurements. They are much less when taken directly inwards at the space just behind the suprameatal spine, and much greater at Broca's point of measurement, which is a full centimetre behind it, and the line of measurement has to run a long way forwards and inwards.

It will be remembered that the antrum runs from the tympanic attic obliquely backwards and outwards, and is therefore found at a lesser depth than the inner end of the posterior wall of the osseous meatus. The average length of this wall is, according to Kerrison, 14·7 millimetres, the average depth of the antrum about 11 millimetres, and never exceeding 15 millimetres. The author objects to Broca's point for operating on account of the additional depth of the bone to be chiselled through, and also on account of the risk of injuring the lateral sinus. He found that in two out of a series of fifty bones the groove was so placed that it would be impossible to operate by Broca's method without injuring the vessel. In operating from the triangle close behind the suprameatal spine, the extreme limit of safety should be regarded as 15 millimetres, or $\frac{5}{8}$ inch. *Dundas Grant.*

Randall, B. A., and Potts, Barton H. (Philadelphia).—*Intradural and later Double Cerebral Abscess complicating Chronic Tympanic Suppuration; Operations; Cure.* "Arch. of Otol.," vol. xxxii., No. 3.

A child aged four, with a history of left-sided otorrhœa for two years, had mastoid symptoms, headache, and vomiting for two days. Violent convulsions ensued most markedly on the right side, involving also the muscles of the face and right eye. Under chloroform the movements were quieted, except those of the right arm and leg. Lumbar puncture evacuated between 3 and 4 ounces of clear fluid under pressure, giving temporary relief.

The mastoid operation was carried out, and the middle cerebral fossa was found open, with a perforation of the dura mater. This was sutured and dressed. On the next day there was paralysis of the right arm and leg. On the fifth day protrusion of pulsating brain substance. On the tenth day the temperature rose with the proportionate degree of rise of pulse-rate. On the sixteenth day vomiting, involuntary micturition, and semi-stupor came on.

The brain was explored for abscess, pus was evacuated, and the cavity, after irrigation with boric acid solution, was plugged with iodoform gauze. Three days later the pulse dropped again, and on removing the gauze 6 drachms of pus from a second cavity escaped. Drainage by soft rubber catheter was then substituted for gauze plugging.

Dundas Grant.

Spalding, J. A. (Portland, Me.).—*Tinnitus; with a Plea for its more accurate Musical Notation.* "Arch. of Otol.," vol. xxxii, No. 4.

He recommends noting the pitch by means of the pianoforte and observing the effect on the patient of the sounding of the note on the piano. In some cases the effect is unpleasant, or even painful; in others agreeable. In the former case he thinks the tinnitus is due to obstructed conduction; in the latter it is more probably labyrinthine. He refers to some of the less well-known remedies for tinnitus, such as the hypodermic or intra-muscular injection of ergot, the mastoid application of glycerole of iodine, local application of dry heat, etc. He prefers pneumatic massage to be carried out by the mouth rather than by a mechanical motor pump.

Dundas Grant.

Breyre.—*Anæsthesia of the Ear.* "Archives Internationales de Laryngologie, etc.," July—August, 1903.

Where the tympanic membrane is intact M. Breyre advises the use of menthol, crystallised carbolic acid, and cocaine, in equal parts, stating that the anæsthesia produced is greater than where a twenty per cent. solution of cocaine is used alone.

A ten per cent. solution of choral hydrate applied to an acutely inflamed tympanum gives considerable relief, as the membrane is much more absorbent than when normal; for this reason the cocaine mixture in those cases, and also where chronic suppuration is present, must be used with caution. For exostosis and mastoid operations, a general anæsthetic is advisable.

Anthony McCall.

Delsaux, V.—*Facial Paralyses of Otic Origin.* "La Presse Oto-laryngologique Belge," January, 1902.

One case is recounted which occurred in a man, aged thirty-five, during acute catarrh of the middle ear following influenza. The otitis yielded to

treatment in six days, and the facial paralysis disappeared in three weeks.

While this complication is rare in acute otitis media, it is not so uncommon as the result of chronic suppuration. Paralysis *à frigore*, the author considers, cannot invariably be attributed to acute catarrh; all such cases should, however, be examined by an aural specialist.

The possibility of deciding the precise point at which the nerve is injured in any case, is discussed at length. Finally a description is given of a procedure recommended by Chipault, for exposing the facial nerve from the stylo-mastoid foramen to the threshold of the aditus in cases where it is desirable to free it from sequestra. *Chichele Nourse.*

Chavasse and Mahu.—*On Lumbar Puncture in Endocranial Complications of Otitis.* "Revue Hebdomad. de Laryngol., etc.," October 24, 1903.

This paper is a *résumé* of the report presented by the authors to the Société Française d'Otologie, etc., in October, 1903.

They first give a short history of the operation since its introduction by Quincke, of Kiel, in 1890; then describe the technique of the operation, and the technique of the examination of the fluid drawn off. Under the latter heading they deal with (1) the pressure under which the fluid escapes; (2) the colour of the fluid; (3) the bacteriological examination, in which, of course, a positive result is of extreme value, whilst a negative result is of no value at all; (4) the cyto-diagnosis. Some of the fluid is centrifugalised, and the deposit examined under the microscope. Healthy cerebro-spinal fluid contains one or two lymphocytes in each field, but if the meninges (*i. e.* arachnoid or pia) are irritated or inflamed, lymphocytosis or polynucleosis appears. Lymphocytosis is found principally in chronic meningeal processes, such as tabes, disseminated sclerosis, syphilis, also in tuberculous meningitis. Polynucleosis occurs in acute non-tuberculous meningitis during the acute stage, whilst later, during recovery, the polynuclear leucocytes are replaced by lymphocytes, which finally disappear. In cases of cerebral tumour, hysteria, "meningisme," neurasthenia, thrombo-phlebitis of the sinus, and in uncomplicated cerebral abscess, the cerebro-spinal fluid remains normal.

In a few exceptional cases some information may be gained by examining the chemical constitution of the fluid, its freezing point, and its powers of laking blood.

The authors next consider in detail the diagnostic value of lumbar puncture, then its therapeutic value, and finally sum up the paper in the following conclusions:

1. Lumbar puncture is a valuable method of diagnosis in cases of intra-cranial complications of ear suppuration, provided that the cerebro-spinal fluid be examined as to its colour, its bacteriology, and its cytology. If performed with the patient lying down, and no aspiration used, it is almost free from danger.

2. Both positive and negative results must be taken into consideration, as also the clinical conditions and the stage of the disease at the time the puncture is made. The influence of certain general diseases on the constitution of the fluid must not be forgotten.

3. In the great majority of cases, if the fluid is turbid (or even if it is clear), and contains either bacteria or polynuclear leucocytes, or both, it indicates the presence of a bacterial meningitis. If the fluid is clear, and contains lymphocytes in quantity, it indicates usually tuberculous meningitis; the diagnosis is of course certain when Koch's bacillus is

found. But lymphocytosis is also found in other chronic meningeal affections, and during recovery from acute meningitis, specially cerebro-spinal meningitis.

4. In extra-dural and sub-dural suppuration the fluid remains normal so long as the arachnoid membrane is not irritated.

5. In circumscribed meningitis the results of lumbar puncture are not yet of much value.

6. In brain abscess, in thrombo-phlebitis of the lateral sinus, and in serous (non-bacterial) meningitis the fluid is clear and normal, but often increased in quantity and at a higher tension, specially in the latter two conditions.

7. In "labyrinthism" and "meningism" the fluid is normal.

8. After traumatic lesions of the labyrinth or base of the skull, causing ear symptoms, red blood-corpuscles are generally found in the cerebro-spinal fluid.

9. Operation should never be put off because of the conditions found in the fluid; as a rule the operator will be enabled to start with a precise object in view.

10. The therapeutic value of lumbar puncture is not great; nevertheless, considering the results obtained in general medicine, and in some cases of otitic meningitis, puncture may rightly be performed along with the surgical intervention.

11. Lumbar puncture has demonstrated the curability of certain cases of meningitis.

12. Examination of the cerebro-spinal fluid, specially as regards its contents in leucocytes, constitutes a great step forwards in the diagnosis of intra-cranial complications of otitis, and ought to be more generally employed. *Arthur J. Hutchison.*

Mercier-Bellevue.—*A Case of Extra-dural Abscess following Acute Otitis Media.* "Revue Hebdom. de Laryngol., etc.," October 17, 1903.

Mrs. M R——, aged thirty-five, came to the author March 30, 1902, complaining of violent headache and slight diplopia. Whilst suffering from influenza she began to have severe earache. The pain was intense, but about the eighth day diminished; at the same time profuse fœtid discharge appeared in the right ear. Three days later the quantity of discharge diminished, and acute headache spreading over the sight side of the head set in, and was soon followed by diplopia. When first seen by the author there were very severe headache, marked diplopia, loss of appetite, insomnia, slight fœtid otorrhœa in right ear, but no fever. A small perforation was found in the postero-superior segment of the membrana tympani; the auricle was slightly raised from the side of the head and depressed. Tenderness over the antrum existed only on firm pressure, but was more marked over the tip of the mastoid. The patient would not permit any operation.

Two days later the headache was even more severe and the diplopia more marked, to which were added a condition of languor and malaise, slight nausea and vertigo. The pulse was slow, strong, and regular; the fundus oculi was normal, but there was paralysis of the external rectus. Next day the author operated on the right mastoid, and found the antrum and practically the whole mastoid process packed with granulations and pus. The tegmen antri was necrosed, and a small fistula in it led into an abscess cavity in the middle fossa, which, after free removal of the tegmen, was found to be extra-dural. Recovery complete.

Arthur J. Hutchison.