tion of carcinoma in a syphilitic subject. (There seems little doubt that specific lesions may supply the local irritation which favours the occurrence of epithelioma.) *Dundas Grant.*

Kobler.—*Diagnostic Value of Affections of the Epiglottis in Typhoid Fever.* "Wien. Klin. Rundsch.," No. 17, 1899.

The author mentions three cases in which only through inspection of the larynx and the changed appearance of the epiglottis it was possible to make the diagnosis of typhoid fever. The typhoid infiltration of the epiglottis is known: epiglottis very swollen and thickened; on the edge of the epiglottis ulcerations. Also, for prognosis, inspection of the larynx may be a help; as long as the epiglottis is infiltrated, the fever is still at an early stage. Finally, it is very important not to confound the cicatrices of these ulcers with those of syphilis, etc.
R. Sachs.

Lunin.—*Epithelioma of the Larynx.* "Petersb. Med. Woch.," No. 17, 1899.

The most interesting part of the case was that the epithelioma was going out from a syphilitic cicatrix. Extirpation of the left side of the larynx; cure. *R. Sachs.*

E A R.

Buys.—*Asepsis and Antisepsis of the Middle Ear.* "Journ. Med. de Brux.," Nos. 13, 14, 1899.

Phenol glycerine, 1 : 10, is considered a good antiseptic bath for the external ear, and much stress is laid on the benefit of using *sterilized* cotton-wool pulp. Paracentesis, drainage by means of gauze or wadding, inflation, and careful syringing are all mentioned. As regards our choice of an antiseptic, oxygenated water is said to be a "precious microbicide," and is looked on as a specific remedy in chronic otorrhœa.
B. J. Baron.

Green, J. Orme.—*Abscesses of the Cerebellum from Infection through the Labyrinth.* "American Journal of Medical Sciences," April, 1899.

Analysis of the Symptoms.

R. C. S.	A. C.	T. P.	T. B. H.
O. M. S. chr. r. 20 years.	O. M. S. chr. r. years.	O. M. S. chr. l. 1½ years.	O. M. S. chr. l. 25 years.
Sudden vertigo.	Sudden vertigo.	Sudden vertigo.	Sudden vertigo.
Pain in ear.	Pain in ear.	Pain in ear.	Pain in ear.
Headache, vertex, bilateral.	Headache, frontal, bilateral.	Headache, frontal, bilateral.	Headache, unilateral, left.
Divergent strabismus, both.	External strabismus, l.		Nystagmus on looking to r.
No optic neuritis.	No optic neuritis.	Optic neuritis, most in l.	No optic neuritis.
	Knee-jerks present.	Knee-jerks absent in r.	Knee-jerks present.
		Facial paralysis from ear.	
	Nausea.	No nausea.	Nausea.
No chills or fever.	Chills and fever.	No chills or fever.	No chills or fever.
	Leucocytosis, 20,100.	Leucocytosis, 14,000.	No leucocytosis.
Delirium at end.	Delirium at end.	Delirium at end.	No delirium.
Sclerosis of the bone.	Sclerosis.	Sclerosis.	Sclerosis.
Caries into labyrinth.	Caries into labyrinth.	Caries into labyrinth.	Caries in labyrinth.
	Arachnitis of cerebrum and cerebellum.	Encephalitis of cerebellum.	No brain disease.
Abscess of cerebellum, 1¾ in. × ½ in.	Abscess of cerebellum.	Abscess of cerebellum, 1¾ in. × ½ in. × ½ in.	
Infection from meatus internus.	Infection from aq. vestibuli.	Infection from whole labyrinth.	

The above analysis of the symptoms in the four cases affords some interesting comparisons. In all a chronic tympanic suppuration was running its course, without other symptoms than otorrhœa, when there was a sudden attack of vertigo, followed soon by dull pain in the depth of the ear. In one (T. P.) this was noticed to be accompanied by a marked increase in the deafness. At this time the penetration and infection of the labyrinth undoubtedly occurred, the vertigo being due to irritation of the cristæ acusticæ of the ampullæ of the semicircular canals. In all four headache was a prominent symptom. In the three cerebellar abscesses it was bilateral; in two of these frontal, and in the other at the vertex. In none of them was there any complaint of the occipital region. In the fourth case, of simple caries without brain disease, the headache was unilateral on the side of the affected ear, as is not uncommon with tympanic suppurations alone. Paralysis of the abducens (sixth) occurred in two, in one bilateral, in one unilateral, on the opposite side from the ear disease; it was perhaps due to pressure on the base of the cerebellum, perhaps to a central lesion. The presence of optic neuritis with other symptoms is confirmatory of brain disease, but is of little value in defining or localizing the lesion.

Otitic abscesses of the cerebellum are due to extension of the inflammation either through the inner wall of the mastoid or through the labyrinthine passages. In the former the abscess is in the posterior portion of the cerebellum; in the latter in the anterior portion. The posterior abscesses can be reached by removing the inner wall of the mastoid, and then, by rongeurs or gouge and mallet, carrying the opening backward to any desired extent, thus exposing the cerebellum below and behind the lateral (sigmoid) sinus, thus giving most thorough and efficient drainage.

The anterior abscesses offer much greater difficulties. They lie so far forward that to reach them from an opening behind the sinus involves puncturing the brain for from an inch to an inch and a half, and drainage for this distance nearly on a level must be inefficient. To reach them from an opening in the occipital bone below the superior curved line requires a greater length of puncture and gives even less favourable conditions for drainage. From a point just in front of the sinus, however, the distance to the orifice of the aquæductus vestibuli is only about one-fourth of an inch, and to the meatus internus about three-fourths of an inch. The posterior surface of the petrous bone can be removed for some distance forward and inward from this point, however, thus reducing these distances one-half. *B. J. Baron.*

Grunert. — *Facial Paralysis due to Ear Conditions.* "Münchener Medicinische Wochenschrift," No. 20, 1899.

I. Those due to inflammatory affections.

Facial paralysis in simple acute middle-ear catarrh is caused by hyperæmia of the neurilemma or pressure of the exudation on the nerve stem in congenital deficiency of the Fallopian canal. In acute suppuration perineuritis, or invasion of pus between the nerve bundles, comes under consideration. In chronic cases complicated by caries, necrosis, or cholesteatoma, escape of pus into the Fallopian canal, compression of the nerve stem through abrasion of the Fallopian canal by cholesteatomata, sequestrum of its wall, suppuration of the nerve stem, pressure of a labyrinthine sequestrum, or limited granulation growths on the nerve, etc., may be the cause. Especially frequent as a cause

is tubercular suppuration. Usually the severity of the ear disease is indicated by facial paralysis.

II. Those due to tumours.

It is very frequent in carcinoma.

III. Those due to injuries.

In fracture of the cranium, blood effusion in the canal or complete laceration of the nerve stem may be caused. In this group must also be included paralysis due to operative procedures or unskilful attempts to remove foreign bodies. *Guild.*

Guye.—*Agoraphobia in Relation to Ear Disease.* "The Laryngoscope," April, 1899.

Benedikt attributed this symptom to insufficiency of some eye muscles. Legrand du Saulle considered it a form of neurasthenia. Lannois and Tournier believed that in their ten cases various forms of ear disease were the causes. Other references are made to the literature of the subject. The author gives the following case:

Lady, aged thirty-three, head-schoolmistress, complaining of deafness in right ear for six months, and occasional giddiness on rising in the morning, has suffered from agoraphobia for two years. She had marked swelling and narrowness of the right Eustachian tube, chronic nasal catarrh, mouth-breathing, etc. Under treatment the condition of the ear improved. Since then there were frequent relapses of agoraphobia, sometimes with marked Menière's symptoms. Under local treatment, and with salicylate of soda taken internally, Menière's symptoms generally subsided in a few weeks; but the agoraphobia continues, and the patient is never able to go out alone in town. For a few days, however, in holiday-time, in the country, she is free from her complaint, and can go out alone. The frequent movements of the head, necessary in walking a busy street, may produce slight rotatory sensations, and so may influence the feeling of anxiety. Once, after a few glasses of wine, the patient for the moment felt almost free from her complaint.

The author treated successfully a gentleman for acute middle-ear disease, without causing improvement in his agoraphobia, from which he had suffered for a year previously. *R. M. Fenn.*

Jones, Hugh Edward (Hon. Assistant Surgeon, Liverpool Eye and Ear Infirmary, etc.)—*The Importance of the Early Detection and Treatment of Suppuration in the Tympanum and Mastoid in Acute Otitis Media.* "Liverpool Medico-Chirurgical Journal," January, 1899.)

The attention of surgeons has been till quite recently directed to the study of chronic otitic suppuration to the comparative neglect of the acute disease and its complications. The following propositions demonstrate that, in spite of the great advances made in the surgical treatment of chronic suppurative otitis and its complications, the success obtained is not such as to warrant any slackening in our efforts to prevent acute cases from becoming chronic.

(1) *Once the wall of a great sinus or the dura has been penetrated, there can be no certainty of a successful issue to operative treatment.* The notes of seven cases which died in spite of operation were read by Dr. Jones at the Edinburgh meeting of the British Medical Association in 1898, with the object of demonstrating the truth of this statement. It is, of course, difficult to establish, but taking his own results

as average ones, and bearing in mind that MacEwen's record in dealing surgically with the common but exceedingly fatal complication of suppurative meningitis is almost unique, it may be safely assumed that the mortality in complicated middle-ear disease is still high. Even when recovery does occur, the ultimate results are not always satisfactory, as the following cases from the author's practice show. A boy operated on for temporo-sphenoidal abscess became in two or three years the subject of uncontrollable fits of temper, and also of dishonest acts, which were not explainable on the ground of natural depravity. A child who had sloughing of a portion of the dura and sub-dural abscess had occasional convulsions and attacks of vomiting for some time after apparent recovery. A little girl, after recovery from nasal meningitis, was blind of one eye and had a very small field of vision with the other. These and other cases show that the earlier the operation after the outset of the infection from the tympanum, the more successful will it be.

(2) *While operations for the relief of extra-dural complications of suppurative otitis*, e.g., *extra-dural abscess, commencing phlebitis, mastoid abscess, cervical abscess, etc., have been invariably successful, as far as the complication itself is concerned, these operations and the radical operations for simple chronic suppurative otitis have not always resulted in cessation of the discharge, nor in restoration of the hearing power.* Either a slight discharge continues, or the cases relapse, or the hearing power gradually diminishes after having improved very much for a time. Stacke reports 6 per cent. of continued discharge and 20 per cent. of relapses.

(3) *With the exception of tubercular cases (and even this is a doubtful exception), all cases of chronic suppurative otitis have once been cases of acute or subacute otitis media, and many of them non-suppurative otitis; moreover, the majority of these cases, by appropriate treatment during the acute stage, might have been prevented from becoming chronic.* According to Walker Downie, the largest number (147) of cases of suppurative otitis media occurring amongst 404 children suffering from ear-disease had originated with acute catarrh, whilst 137 resulted from measles, and 63 from scarlatina. Although adenoid growths are frequently the seat of tubercle, and the latter plays an important part in the carious processes, even here early and vigorous treatment may do much to eradicate the mischief. Though more difficult in the case of children than in adults, the progress from acute otitis to chronic suppurative otitis can generally be followed.

(4) *Another and stronger reason for directing attention to the acute stage depends upon the fact that grave intra-cranial complications often arise during the acute stage of suppurative otitis.* They may follow extremely quickly upon the acute otitis. Three of Jones's cases reported last year were consequent upon acute suppuration. R. W. Murray, MacEwen, and Wissing have all reported cases of brain abscess with imperforate membrane; whilst a number of authors have described severe complications arising within a short period of the onset of acute otitis; still, it is true that cerebral abscesses comparatively rarely make their presence known during the acute or subacute stages of suppurative otitis. Grunert estimates the proportion of acute to chronic brain abscesses as 9 to 91, and Jansen at 1 acute to 6 chronic, a much higher ratio; but the old thick-walled brain abscesses so often met with may reasonably be supposed to have originated during the acute stage of the case. Certain observations upon the

bacteriology of otitis lead up to the inference that the foundations of complications are laid during the acute stage, or during the acute suppuration resulting from reinfection. Thus, to quote an example, the pneumococcus is most frequently found in acute otitis (from causes other than scarlatina and influenza), and while often most destructive to bone, may lie dormant for varying periods in its recesses.

(5) *The stages of acute otitis media; the point at which it becomes suppurative; the conditions which lead to involvement of the antrum and mastoid cells, and which convert an acute case into a chronic one.* (*a*) Even in the first, serous, pre-perforation stage, it is probable that the attic and mastoid antrum to some extent participate, for, according to Broca and Lubet-Barbon, there is always a certain amount of tenderness on pressure over this region. The local treatment consists in leeching, applying the cold Leiter's coil, and the rendering of the meatus aseptic, by the use, *e.g.*, of glyc. acid. carbol. with sod. bicarb., followed by a plug of antiseptic gauze. Paracentesis is best delayed so long as there are no indications of pus within the tympanum, as the multiplication of organisms hitherto retarded goes on at an enormous rate as soon as rupture takes place. These new cocci probably come from the naso-pharynx, accounting also for suppuration within the tympanum and mastoid when occurring without perforation of the membrane. (*b*) If pus has once formed, however, it must be let out, if the membrane has not already ruptured. (*c*) The accessory cavities of the tympanum generally share in the inflammatory process, and the antrum and adjoining cells contribute the greater part of the discharge, but here, as in the tympanum, resolution often takes place. If the attic or antrum get cut off from communication with the tympanum, or the contributory cells from the antrum, so that the inflammatory products do not escape, acute constitutional disturbance will follow, and if an operation is not soon undertaken the bony walls of these cavities will be destroyed in one or more situations. According to Grunert, extra-dural abscess is much more likely to occur in the acute than in the chronic stage, owing to the presence of pneumococci, and Bezold's mastoiditis is equally prone to occur there. In all these instances immediate operation is demanded. (*d*) There is a class of case about which there may be some difference of opinion—those, namely, in which after ten to fourteen days the acute symptoms have subsided, but the discharge continues and the patient is very deaf. There is no particular pain; the temperature is about normal; there is no obvious swelling of the mastoid; the meatus is swollen, occluding the view of the membrane, but there appears to be a free exit for discharge, and the patient feels comparatively well. It is here that a thorough examination is of vital importance. The surgeon must stand behind and in front as well as at the side of the patient, and compare the ear and mastoid of the affected side with the healthy one in every particular. Pus will be found on exploration of the mastoid cells in four cases out of five: (1) If there is tenderness on tapping the base or apex of the mastoid; (2) If the apex feels to be slightly prolonged on the affected side; (3) If there is a slight cushiony feeling on one side as compared with the other; (4) If there is increased heat on one side; (5) If on rubbing the skin briskly on both sides one assumes a duskier red; (6) If there is pain or stiffness on moving the head from side to side, with rigidity of the sterno-mastoid. In making the diagnosis, certain errors must be guarded against; *e.g.*, œdema is sometimes met with over the mastoid in otitis externa, and acute

tenderness over the mastoid may occur in hysterical subjects of chronic middle ear catarrh. The operation required is simple opening of the cells down to the extreme tip, and in some cases the mastoid antrum. Politzer's views on this point are well known, but are incompatible with the fact that the discharge often ceases from the tympanum the day the mastoid opening is made, and hardly ever returns. There is often a distinct separation between the antrum and the cortical abscess, but owing to the occurrence of the discharge ceasing, Jones assumes that there has been a tortuous channel connecting the cavities, which acted as a safety-valve to the cortical abscess. Anyhow, it is advisable to keep the wound open by packing with iodoform gauze until the septic processes have ceased. The results of this operation are always good, and hearing is almost entirely restored. (*e*) In those cases in which a chronic discharge is just being established, but owing to the absence of air-cells in the mastoid, no evidence of mastoid empyema can be obtained. Jones thinks that there can be no harm in opening the antrum in every case in which, the acute stage having passed over (say in three weeks), the discharge continues. In the absence of an exploration, the case must be kept under observation for a long time.

(6) *The importance of post-nasal vegetations and of permanent perforations of the membrana tympani, in causing relapses or continuous suppuration is not to be overlooked.* Lake has shown diagrammatically the mechanical effect of adenoids in causing pus to lodge in the lower part of the tympanic cavity even when a perforation of the membrane is present; and furthermore, these growths harbour all sorts of organisms; the indications for the thorough removal of all trace of adenoids in every case of otitis media is therefore clear. The entrance of fresh infection through a permanent perforation of the membrana tympani has been successfully combated by causing the hole to cicatrize by the aid of trichloracetic acid. A 10 to 50 per cent. solution is applied with a wool-covered probe to the edges of the perforation. About ten applications, at intervals of four to eight days, are said to be required. Thus, the original disease having been eradicated, and the chance of reinfection minimized, the organ of hearing is in a fair way to being restored to all but its former usefulness.

Pegler.

Lamann, W. (St. Petersburg).—*On the Tampon Treatment of Furuncular External Otitis.* "Monatschrift für Ohrenheilkunde," February, 1899.

Cotton-wool is twisted carefully on a probe which may have a slight screw worked on it, but must not be knobbed. A tampon is made of uniform diameter, and of such a thickness as to fit tightly into the inflamed meatus, and long enough to reach the drum. The tip of the tampon must be cut straight across, so as not to taper. It is dipped in the following ointment: Oxide of zinc, 40 parts; carbolic acid, 6 parts; white vaseline, 300 parts; then warmed and dipped, and warmed three times, so that the wool may be thoroughly impregnated with the ointment. The tampon is then pushed into the meatus with a screwing movement, and, after removal of the probe, is left for twenty-four hours. Before the insertion, the ear may be syringed out with a weak solution of lysol or creolin. The plug is removed at the end of the twenty-four hours, and the patient can then renew it twice daily. The author finds this treatment give better results than any other, and

he attributes it to the pressure exercised. (Some credit may reasonably be given to the carbolic acid and the zinc in his excellently devised ointment.—D. G.) *Dundas Grant.*

Lannois and Tournier.—*An Auricular Lesion is frequently the Determining Cause of Agoraphobia.* "Ann. des Mal. de l'Oreille," October, 1898.

The authors support this proposition by recording ten personal cases in all of which a well-marked agoraphobia was associated with an auricular lesion giving rise to vertigo. In four of the cases local treatment of the ear was followed by cure or marked relief of the symptom of agoraphobia, which seemed in these cases to be immediately dependent upon the presence or absence of vertigo. *Waggett.*

Stevithal.—*Report of the Surgical Department of the "Evangelische Diakonissenausfelt in Stuttgart" for the years* 1895-1897. "Würtemb. Med. Corr. Bl.," No. 8, 1899, Beilage.

The report contains three cases of complications after suppurations of the middle ear: (1) Extradural abscess in the right occipital bone after otitis media. Operation; cure. (2) Man, thirty-five years old; caries of the processus mastoidis; meningitis; abscess in the right lung. Operation; death after six days. (3) Boy, six years old; otitis media purulenta fœtida since one and a half years; caries of the processus mastoidis; permanent pains in the back of the head, vomiting, slow pulse. Diagnosis, *abscess in cerebello;* operation; abscess found; death after six days.

There is an interesting case of a *syphilitic ulcer in the larynx.* Signs of severe stenosis of the larynx, caused through a big ulcer on the left vocal chord. Œdema under both vocal cords. First impression was that of a carcinoma; but as there was still an unusual part between the two swellings on the left and on the right side, and as two separated carcinoma are very rare, they took it for syphilis, kal. iodet. Tracheotmia supervened the next day. Under treatment of pot. iod. and calomel, cure after six weeks; only paralysis of the nervus recurrens was left. *R. Sachs.*

Urbantschitsch.—*On the Value of Methodic Hearing Exercises for Deaf People.* "Wien. Klin. Rundsch.," Nos. 9, 10, 1899.

As is well known, the author many years since wrote very often about this subject. He thinks that a good many people who are hard of hearing, or even deaf and dumb, could be cured by methodic exercises. Details must be seen in Urbantschitsch's monograph, which appeared some time ago. Politzer and Gruber are not of the same opinion, as also may be known. *R. Sachs.*

Von zur Mühlen, A.—*Case of Necrosis of the Labyrinth.* "Petersb. Med. Work," No. 13, 1899.

Child, two and a half years old; chronic suppuration of the middle ear after scarlet fever. Radical operation; after half a year nearly the whole internal ear was eliminated. *R. Sachs.*

Webster.—*Pneumatic Massage in the Treatment of Deafness and Tinnitus.* "The Larnygoscope," April, 1899.

The writer gives a detailed report of six cases of deafness resulting from chronic suppuration of the middle ear. The middle ear was dry in each case, and the membranes presented every degree of perforation (including complete destruction). Only in one case was catheter treatment carried on at the same time. The massage was applied through a Siegle's speculum by an air-pump controlled by an electric motor. The results (worthy of careful perusal) are distinctly favourable as regards the increase of hearing-power and the removal or relief of tinnitus. The cases showing greatest gain in hearing were cases where suppuration had recently ceased. One case showing permanent relief of tinnitus was not recent.

Pneumatic massage in this class of case may be of considerable value as an addition to other modes of treatment. The electric motor is not essential, as there seems to be no advantage in rapidity; and there is some noise attending rapid vibrations. *R. M. Fenn.*

White, F. Faulder.—*Exfoliation of the Cochlea.* "Lancet," December 17, 1898.

The patient was a woman, aged twenty-eight years. She had suffered from a discharge from the right ear from childhood. In September, 1897, she had a severe illness, her account of which is as follows: "It began with severe pain in the ear and right side of the head. I had constant vomiting for twenty-four hours. I became delirious, and did not know where I was for several days. The doctors applied ice to the head and poulticed the ear. I was in bed for six weeks." She gradually got better, but has been in poor health ever since. The discharge continued to be profuse and was very offensive. She says that her medical attendant told her that it would be very dangerous to check the discharge. She came under my care in October. The middle ear was full of an offensive discharge and she was quite deaf on the right side. She was ordered frequent syringing with a hot solution of silico-fluoride. The patient rapidly improved, but there were two or three polypi which required removal, and while extracting these the forceps brought away a small piece of bone which was loose in the middle ear. This proved to be the modiolus of the cochlea with part of the osseous spiral lamina. The patient made a rapid and perfect recovery. The ear is now dry and sweet, the inner wall presenting a regular surface, and there is nothing in its appearance to reveal the somewhat unusual deficiency.

Such a case as this shows what Nature can sometimes effect without operative interference, and every month furnishes fresh proof of the reparative powers of the tissues in the middle ear and the adjoining cavities. The vitality of the tissues is lowered by septic organisms, but even after half a lifetime of neglected otorrhœa the middle ear may be restored to health by proper treatment. Yet half the patients who come to the author have been under treatment elsewhere without relief or have been professionally advised that it was dangerous to meddle with the ear. Even in works on otology one fails to find any adequate protest against the everyday neglect of this disease. Some aural surgeons, indeed, write as if nothing could be more dangerous, but the hope held out is through operative interference. In uncomplicated cases this is, to say the least, unnecessary.

StClair Thomson.