

3. The symptoms of otitis media consist in restlessness, elevated temperature, and loss of weight. Sometimes these symptoms are not present.

4. Very often the symptoms of otitis media are connected with bronchopneumonic processes. Probably both processes are due to the same cause, viz.: aspiration.

5. Death can result, in cases of otitis media, from slow atrophy or from an extension of the micro-organisms into the cranial cavity (meningitis), or into the blood (septicæmia).

6. The inflammations of the middle ears of infants must receive treatment suitable for the varying conditions.

RELIEF OF CHRONIC DEAFNESS, TINNITUS AURIUM AND TYMPANIC VERTIGO, BY INTRA-TYMPANIC OPERATIONS.

During the past year much has been said and written on this important topic by BLAKE (*Archives of Otology*, vol. xxii.), C. H. BURNETT (*Philadelphia Medical News*, vol. lxi.), GORHAM BACON (*New York Medical Journal*, April 14, 1894), and RANDALL (*Therapeutic Gazette*, February 15, 1894).

Blake's investigations have been directed chiefly toward the removal of and operations upon the stapes. His conclusions are that "it will be only as the result of a long series of carefully conducted comparative observations by different investigators that the value of the operation for the removal of the stapes can be given its proper place in aural surgery."

Burnett's operations have been directed entirely toward removal of the incus and the consequent liberation of the stapes from the impacting force of the malleus and incus. The membrana and malleus are to be left entirely *in situ*, inflammatory reaction in the tympanum being thus avoided. He has reported beneficial results, especially in relieving Ménière symptoms.

Randall in alluding to total excision of the membrane and larger ossicula says: "Excision in carefully selected instances of catarrhal deafness may be expected to aid a considerable percentage of cases, but every patient must run a decided risk of failure, perhaps disastrous" (*loc. cit.*, p. 5). Bacon in discussing total excision of the membrana tympani and ossicles, an operation now entirely discarded in chronic catarrhal deafness by the best authorities, says "we should not resort to excision of the membrana tympani and ossicles in cases of chronic dry catarrh until we have exhausted all other methods of treatment at our command."

CHOLESTEATOMA OF THE EAR.

DR. BENNO BAGINSKY reviews the various opinions and theories regarding the origin and course of cholesteatoma of the middle ear from the time of Cruveilhier and Johannes Müller to the present time (*Berliner klinische Wochenschrift*, 1894, Nos. 26 and 27).

The three opinions heretofore advanced are as follows:

1. Cholesteatomata are heteroplasmic tumors and always occur as such (Virchow).

2. Cholesteatomata of the ear are products of retention, resulting either from chronic suppuration or "desquamative" inflammation of the middle ear (Von Troeltsch, Wendt, Politzer, and others).

3. A dualistic view according to which both processes are regarded as possible. After a careful consideration of the views of Lucæ, Habermann, and Bezold, in addition to those already named above, Baginsky advances the very plausible theory that as cholesteatoma of the middle ear is usually found in connection with suppuration of the ear, cholesteatoma of the petrous bone may be regarded as the *primary* affection and suppuration as the *secondary*.

The question as to the origin of cholesteatoma is still unsettled. This uncertainty of the causation of cholesteatoma in the middle ear extends also to that observed in the external auditory canal and drum-membrane.

INFECTIOUS ENDOCARDITIS OF THE RIGHT SIDE OF A PYÆMIC NATURE,
CONSECUTIVE TO A SUPPURATIVE OTITIS.

HUCHARD and LIEFFING have recorded the case of a young woman, twenty years old, who suffered from headache, fever, and anorexia for a week. Tuberculous meningitis was suspected from the family history and from the signs of softening in the apex of the right lung. In five weeks a large, retro-auricular phlegmon made its appearance and extended downward into the neck. Notwithstanding deep incisions of the abscess the symptoms of meningitis continued and increased. The patient finally died two months from the beginning of the disease. The autopsy revealed suppurative otitis media; no lesion of the mastoid cells, but a suppurative thrombosis of all the sinuses and of the internal jugulars was discovered.

Furthermore, there was found on the right side an infectious parietal endocarditis, the valve being healthy. The pulmonary infarct in this instance resulting from the endocarditis in the apex of the lung simulated pulmonary tuberculosis.—*Annales des Maladies de l'Oreille*, Tome xx., No. 1.

MYXOSARCOMA OF THE DRUM-CAVITY.

DR. A. KUHN, of Strassburg, records the occurrence of the above-named disease in a child, a boy, one year old (*Deutsche med. Wochenschrift*, July 5, 1894, No. 27). The disease made its appearance when the child was six months old, without any previous ailment, with a copious, offensive, purulent discharge from the right ear. After the running had lasted for six months the parents brought the child to the clinic of Dr. Kuhn, when there was observed a soft grayish-red tumor, the size of a hazelnut, filling entirely the right auditory canal and projecting from the meatus. Considerable thick pus flowed from the affected ear. Also, immediately below the point of the mastoid process there was a small fistula giving exit to pus, and through which a sound could be passed far inward toward the auditory canal. Further examination, after removal of the tumor from the canal with a snare, and opening the mastoid fistula, revealed the presence of a new growth, extending from the drum-cavity outward and downward through the floor of the auditory canal, which it had eroded as far as beneath the insertion of the sterno-cleido-mastoid muscle. The mastoid cavity was entirely free of pus or morbid growth. Removal of the morbid growth was followed by great improvement. The fundus of the ear could be examined, revealing total destruc-