THE PREVENTION OF EAR AND THROAT TROUBLES IN INFANCY.

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(Concluded from page 47.)

Of the infectious fevers, the greatest offenders are scarlet fever, diphtheria, and measles. They may cause deafness either by meningitis, by catarrh of the tympanum, or by causing an abscess in the drum cavity. The greater number of measles, scarlet fever, and diphtheria ear complications that are seen are those in which suppuration and consequent chronic discharge from the ear has become established. It is this form that requires most to be considered here. This form of ear disease is not only often infectious, but it tends to remain, to destroy hearing, and to kill. A fatal result may be delayed for years, but it is none the less sure. More operations on the ear are necessitated by the serious brain and other complications of ear discharge following scarlet fever, diphtheria, and measles, than in any other form of disease of that organ. The time comes when the surgeon has no alternative but to sacrifice function to save life; often the destruction wrought by the ear disease has already destroyed the greater part of the hearing. The proper treatment of these conditions is to prevent them when they threaten, or to interfere promptly when they occur. A large number of these cases can be prevented by care of the nose and throat during an attack of scarlatina or other infectious fevers. The nose should be kept clean by means of sprays and gently blowing, and the throat by antiseptic mouth washes. A watch must be kept unceasingly on the ears, so that on the slightest sign of pain efficient help can be obtained. When ear discharge has been established, the question of prompt and adequate treatment is purely a medical one, and not for discussion here.

In whooping cough, ear complication generally takes the form of discharge, the suppuration being the result of the forcing of infective material from the nasopharynx into the tympanum through the Eustachian tube during the spasmodic cough of the disease. Occasionally the deafness is a nerve deafness, and due to hæmorrhage into the cochlea during the spasms of coughing.

Mumps occasionally causes severe nerve deafness, and, although this complication of the disease is rare, it should be widely known, for, unless the deafness is caught very early and treated promptly and energetically, it is incurable.

The third group of causes of deafness is that of primary ear disease. Much of this has already been discussed. Indeed, in infants and children primary ear disease is almost inseparable from adenoids. The origin of catarrhal deafness has, I think, been discussed sufficiently, but there are a few points in connection with deafness with discharge that require notice and emphasizing.

Inflammation in the cavity of the drum, with the formation of matter or pus (practically an abscess in the ear) is a serious menace, not only to hearing but to life. Yet the majority of such cases are amenable to timely and prompt treatment. No case in which there is a discharge of matter from the ear should be neglected. Nearly all cases of tympanic abscess start as an acute inflammation of the Eustachian tube and drum cavity. When they are not due to one of the infectious fevers, or to influenza, they are practically always due to causes starting in the nasopharynx, especially to adenoids. The inflammation, and, later, the formation of matter shut up in a bony cavity with unyielding walls, causes severe pain, only relieved by perforation of the drumhead and the discharge of the contained accumulation. It is at this early stage that an incision through the drumhead, combined with active treatment of the nose and nasopharynx is most likely to bring about relief and cure, by relieving tension, draining the tympanum, and attacking the cause. Surgical incisions in the drumhead heal rapidly and leave little or no damage, so that a dangerous condition is stopped and hearing preserved.

Cases which are neglected pass on to chronic discharge, kept up by repeated re-infection through the Eustachian tube and by bad conditions in the drum cavity. Owing to the shape of the drum cavity, it is not easy for it to drain well. It is then that complications begin. If the relations of the drum be considered—the antrum behind, the thin roof above, separating it from the brain cavity by a partition scarcely thicker than paper, the floor below, with the big vein of the neck underneath, the facial nerve, which supplies the nerve impulses that move the muscles of the face, passing through it, and the internal ear, containing the auditory nerve endings on its inner side—the occurrence of such serious complications as mastoid

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