THE PREVENTION OF DEAFNESS.

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As the science and art of medicine progress and knowledge is enlarged by research, so does the treatment of disease become preventive rather than curative. Two hundred years ago, and even less, we were treating infectious fevers, suppurations, and the like by frequent bleedings, severe purgations and nauseous mixtures, and those who survived only did so by means of a strong constitution combined with a faith which was in direct proportion to the drastic nature of the treatment. Now the patient research of the scientific physician has shown us upon what diseases depend, and we endeavour to prevent them by isolation, antisepsis, asepsis, and vaccines. A hundred years ago ophthalmia neonatorum was a common cause of blindness, but, by the preventive treatment now organised and working, the next century will scarcely know it.

With advance in other branches of medicine and surgery, our knowledge of the causes which lead to deafness in children and adults has gone forward with equal strides, and the aural surgery of the year 1887, when I first began to study the subject, is as different from the otology of to-day as is pre-Listerian surgery to that of modern times. And this progress, like that in other departments of the healing art, has led towards a similar goal—prevention. The prevention of deafness and diseases of the ear lies in the hands of our profession as readily as does the prevention of small-pox, and once that fact is realised and the inertia of conservatism in treatment has been overcome, a reduction in the number of acquired deaf-mutes and of adults suffering from incapacitating deafness can be but a matter of time.

The vast majority of cases of chronic suppurative and chronic catarrhal middle ear disease begin in childhood; it is, therefore, in infancy and childhood that they can be prevented. There are, of course, other forms of deafness and ear disease beside these two. Tuberculosis, for instance, attacks the ear in both young and old, although it is more frequently the infant that falls a victim; con-

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genital syphilis causes one of the most serious forms of nerve deafness; mumps is another disease which may be rapidly destructive of hearing, although this complication is, happily, rare. It is, however, chronic discharge and chronic catarrh that are the most common causes of loss of hearing, and, as these are eminently preventable in the light of modern scientific medicine, it is to them that I shall devote this paper exclusively.

Let us take middle ear suppuration first. Chronic discharge from the ear is practically always the result of an acute suppuration caused either by one of the infectious fevers (of which scarlet fever, measles and diphtheria are the most often to blame) or to some other infection spreading from the post-nasal space. In the latter case it begins as an inflammation of the mucous lining of the middle ear, whilst in the infectious fevers it may commence in the same way or as an osteitis of the temporal bone. It is this infective osteitis of the temporal bone that makes some of the ear complications of scarlet fever and diphtheria so serious and destructive. Nothing but prompt surgical treatment can be of any avail in these bad cases. They probably arise through the bloodstream, and their prevention is bound up with the prevention of the infectious diseases in which they occur. When, on the other hand, the suppuration starts as an inflammation of the tympanic lining membrane, the complication can be prevented by proper attention to the nose, nasopharynx and throat. Even when the condition has become established in the middle ear, serious consequences can be averted by timely incision of the drum. The treatment of these complications of the infectious fevers. can really only be carried out with perfect efficiency by a skilled specialist, and, therefore, it would be a forward step of great value if such an officer were attached to every fever hospital. A unanimous resolution to this effect was sent up by the Otological Section at the Liverpool meeting of the British Medical Association this year. If this were done many children might be saved from severe deafness either during childhood or on attaining to adult age. At the present time the infectious fevers are responsible for a large number of such cases. In a recent article* I showed that, out of 592 cases of children whose acquired deafness was of such severity as to necessitate special methods of education, 26.3 per cent., or more than a quarter, owed their condition to the exanthe-

*" The Causes Leading to Educational Deafness in Children" (Lancet, July 20th and 27th, 1912).



