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OF THE USE OF THE OPHTHALMOSCOPE IN DISEASES OF THE EAR.

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The organ of hearing is only accessible in its peripheral portion to direct exploration. Whilst the ophthalmoscope permits us to study the fundus of the eye, the internal ear enveloped in its bony case, remains concealed from the aurist who can only diagnose lesions by indirect means or by elimination. Nothing permits us to hope that these unfavourable conditions of a purely anatomical nature, can ever change, and if we wish to arrive at a knowledge of the exact nature of the diseases of the internal ear, we must have recourse to indirect means. For some time past the ophthalmologists and aurists, Knapp, Moos, Kipp, Allbut, have endeavoured to recognize the condition of the auditory nerve, from that of the optic, but up to the present the result of ophthalmoscopic examination has established no fixity of data in observations of diseases of the ear. We may then profit by the important communication made on this subject by Professor Zaufal to the Medical Society of Prague, by calling the attention of the readers of the "Progrès Médical" to this subject. In the cases of nervous deafness, so frequent a form in young women and in which noises predominate, with a loss of osseous perception and a negative state of the apparatus of transmission, it is very important to know to what immediate cause is due the functional trouble, and the state of the retina will indicate that of the lamina spiralis of the axis or modiolus of the cochlea, especially from the point of view of the circulation. The same applies for sudden deafness of syphilitic origin, when a rapid exudation takes place in the internal ear, and for cerebral traumatisms followed by deafness, etc. When the troubles observed have not their cause in the middle or external ear, it is often very difficult to determine whether the lesion has its seat in the internal ear, the nerve or the auditory centres. Now an ophthalmoscopic examination will permit us to determine certain encephalic lesions, and we can often determine whether the cause of the trouble is central, perepheral or mixed. In the affections of the tympanum, it is still necessary to practice ophthalmoscopic examinations at whatever stage they may be seen, for even in the absence of all symptoms, there may already have taken place a propagation to the nervous centres This obtains in suppurative, acute or chronic otitis, and even for catarrh, simple, acute or chronic, which may, as we have instances, produce intra-cranial complications. In revealing to us meningitis and thrombosis from their commencement, the ophthalmoscope permits us again to determine the indications for trephining. The lesions of the fundus of the eye augment or diminish with those of the meninges, the progress of meningeal lesions will be revealed by that of lesions of the retina (Allbut, Kipp, Zaufal,) and again it is by the state of the retina that we are enabled to judge of the amelioration of encephalic lesions due to trephining. When inflammation of the tympanum is continued to the meninges, the ophthalmascopic lesions appear at first in the corresponding eye, but they nevertheless affect both eyes, and sometimes are more marked in the eye opposite. The same after trephining, it is on the corresponding eye the amelioration commences to be produced, but it manifests itself also on the other eye. A curious circumstance is that in all the cases studied by Zaufal, where a mild suppurative otitis with or without caries had produced meningitis and thrombosis, constantly were found very marked alterations of the fundus of the eye (stasis, neuro-retinitis, strangulation, etc.) contrary to that which occurs in other forms of meningitis, principally in cerebro-spinal meningitis. To more fully understand all the importance of this new element of diagnosis, we cite a case reported by Zaufal: "A young man 16 years of age, very vigorous, was attacked with mild suppurative otitis of the left ear with perforation of the membrana tympani and cervical adenitis. No method of treatment had proved of any avail, and for some time his general condition was bad. There was night fever and anorexia; on going down stairs the patient had experienced vertigo, and irrigation of the ear commenced to produce giddiness. Nothing to be