

threads of considerable thickness, is washed out. On the surface of these can readily be seen, with the naked eye or a lens, the characteristic black points or sporangia. In *aspergillus flavescens* the surface seems as if covered with lycopodium. After the removal of the living membrane from the bony passage and the tympanum, it is found for the most part to be stripped of epithelium, swollen and red.

*History.*—The duration of otitis externa parasitica depends on the spread of the fungus growth and the earlier or later commencement of treatment. Where the process is allowed to take its own course, or where the true nature of the disease is not recognized by the attending physician, then the inflammation may continue for many weeks, and, as has been observed in several cases, lead to the perforation of the membrane. In many cases the symptoms of inflammation disappear quite independently of the continuance of the fungus, only to return, after an interval of weeks or months, with renewed vehemence. On examining such cases we often find the meatus filled with an infiltrated polished fungus membrane. Immediately on the removal of the membrane in the inflamed condition, an evident cessation of the pain and subjective symptoms occurs, and in favourable cases there is rapid healing. But where, after the removal of the membrane, no anti-parasitic remedy is used, frequently on the following day, with severe symptoms, the meatus is again covered with fungi similar to the one removed on the previous day. Relapses are thus of frequent occurrence, until the parasite spontaneously dies out, or is removed by treatment.

*Diagnosis.*—The diagnosis of fungus growth in the ear presents no difficulty, if, on distinct symptoms of otitis externa, an examination with the ear speculum shows the coloured characteristic condition. Sometimes there are dark brown epidermal flakes syringed from the ear that might pass for

fungoid growths; but which are due to colouring with foreign particles. In doubtful cases the microscope soon settles the matter.

*Prognosis.*—This generally is good in otitis externa parasitica, if, on the application of a remedy, there is rapid healing, or even after perforation of the tympanum, the inflammation soon subsides. If, on the other hand, there remains a certain amount of inflammation, and the person continues to live in a damp locality, a favourable result to treatment may be long delayed.

*Treatment.*—After the fungus growth has been removed by syringing as well as it is possible, as well as the greater part of the false membrane, the meatus is filled by means of a warm spoon, with rectified alcohol. This is allowed to remain in for about quarter of an hour, and repeated twice a day. Should this give rise to too severe burning pain, the alcohol must be diluted with an equal amount of distilled water for a short time, and the full strength gradually resumed.

The success of this treatment is usually so great that after two days no spores of the fungus are visible in the meatus; while it and the membrana tympani are covered with a dry, tender epidermis. The ringing, pain, and deafness are nearly gone. For the complete prevention of any residual trouble, Politzer advises the patient to continue the use of the alcohol for a considerable time. In one case he used it four weeks, in another for nearly a year. In the case I had under my care, the disease had been contracted in Saginaw City. The alcohol was used, and with such good effects that after ten days no trace of fungus could be found, and the tissues appeared to be quite healthy. There was no perforation, but the disease was well marked on the membrana tympani.

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