

other symptoms, but care must be taken to exclude intercurrent affections and purulent foci in other parts of the body.

Of the germs found in the discharge from the canal, streptococcus and pneumococcus appear to be the most malignant and are always present in cases of a fulminant type. The inflammatory process is severe and rapid, and does not readily yield to ordinary treatment, so that mastoid involvement is generally the case. The staphylococcus produces much milder symptoms, and the discharge is often watery, or mucoid and stringy in character, and not creamy.

Cases presenting staphylococcus infection or infection of a mixed character comparatively seldom go on to mastoid involvement when ordinary measures in treatment are carried out.

As stated above, the streptococcus capsulatus is a formidable germ on account of it producing symptoms of a very mild character, quite out of proportion to its activity, and on this account cases showing the presence of this germ should be watched very closely. A microscopic examination of the discharge from the canal should be made in every case where possible, as it reveals the nature of the infection and its probable virulence.

Other methods have been brought forward as diagnostic aids, viz., transillumination, percussion and auscultation of the bone, but they are so uncertain as to render them of little practical value.

TREATMENT.

In the presuppurative or early stage of mastoiditis such abortive measures as the application of cold, leeching, etc., are no doubt of service, but when once suppuration has become established, their benefit is questionable. Local blood letting gives rise to a tenderness which may be confounded with that arising from the inflammatory process. Cold relieves the pain, but when discontinued the symptoms recur. Many advocate the application of heat in the form of a hot water bag or moist poultice. This, while it may favor germ activity, seems to facilitate discharge.

If there is an otorrhea, a careful examination of the canal and drum membrane should be made, and measures taken to provide a free drainage, enlarging the existing opening, if necessary, with a blunt knife.

Should the canal be dry, and a bulging drum present, a free incision should be made, extending from the extreme lower