

# Culture

## Culture

A variety of microorganisms are capable of producing mycetoma that can be identified by their textural description, morphology and biological activities in pure culture. Deep surgical biopsy is always needed to obtain the grains that are the source of culture. The grains extracted through the sinuses are usually contaminated and not viable and hence should be avoided. Several media may be used to isolate and grow these organisms. In the absence of the classical triad of mycetoma, the demonstration of significant antibody titres against the causative organism may be of diagnostic value and aid follow up. The common serodiagnostic tests are immunoelectrophoresis and ELISA. Summary box 6.16 Mycetoma: diagnosis

Usually presents late as it is painless Triad of painless subcutaneous mass, multiple sinuses and seropurulent discharge Clinical picture may be deceptive as there may be deep-seated extension May spread to lymph nodes Can be confused with Kaposi's sarcoma Radiologically can be mistaken for osteosarcoma MRI shows typical 'dot-in-circle' sign Open biopsy and FNAC are confirmatory

Ideally this should be a combined effort between the physician and the surgeon. In actinomycetoma, combined drug therapy with amikacin sulphate and co-trimoxazole in the form of cycles is the treatment of choice. Amoxicillin-clavulanic acid, rifampicin, sulphonamides, gentamicin and kanamycin are used as a second line of treatment. Long-term drug treatment can have serious side effects. In eumycetoma, ketoconazole, itraconazole and voriconazole are the drugs of choice. They may need to be used for up to a year. Use of these drugs should be closely monitored for side effects. While not curative, these drugs help to localise the disease by forming thickly encapsulated lesions that are then amenable to surgical excision. Medical treatment for both types of mycetoma must continue until the patient is cured and also in the postoperative period. Culture

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