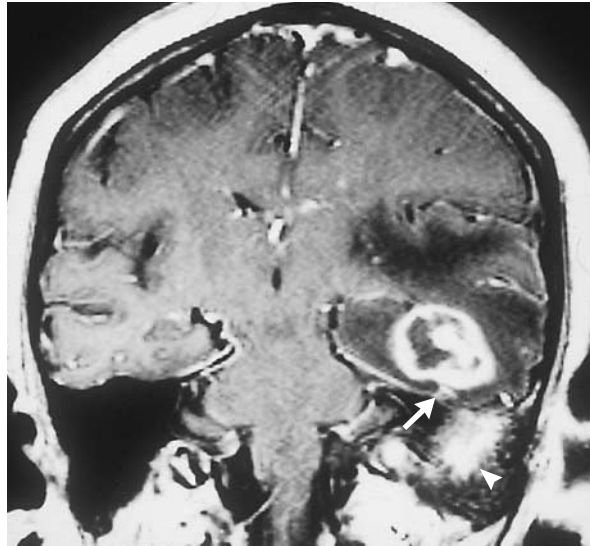




Images in Clinical Medicine



Tuberculous Mastoiditis and Cerebral Tuberculoma

A 57-year-old woman was admitted with progressive drowsiness and a change in mental status. A biopsy of an axillary node had been performed one week before admission because of bilateral axillary lymphadenopathy. Neurologic examination revealed a short attention span and right-sided homonymous hemianopia. She was afebrile, her neck was supple, and no facial weakness was noted. A computed tomographic scan of the head showed a ring-enhancing mass in the left temporal region. During preparation for stereotactic needle biopsy of the brain mass (planned because her mentation continued to deteriorate), discharge from the left otic canal was noted. Acid-fast bacillus staining of this material was positive, and the procedure was abandoned. Subsequent magnetic resonance imaging confirmed the presence of a mass in the temporal lobe and, after infusion of gadolinium, demonstrated enhancement of mastoid air cells (arrowhead) with a connecting tract (arrow) between the mastoid and the intracranial lesion. Discharge from the left otic canal showed acid-fast bacilli. After 12 days of antituberculous therapy and corticosteroids, the patient became more alert. A test for human immunodeficiency virus was positive, and the acid-fast bacilli were identified as *Mycobacterium tuberculosis*.

Brain abscess is an established complication of mastoiditis, and *M. tuberculosis* causes less than 0.1 percent of cases of otitis media and mastoiditis. Tuberculosis can reach the mastoid through the eustachian tube, hematogenously, by way of lymphatics, or through a perforated tympanic membrane. In this case, there is a connection between the intracranial tuberculoma and the diseased mastoid through the dura, which usually forms an effective barrier against such direct invasion.

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