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Isolated oculomotor and abducencs nerve palsies as initial presentation of cavernous sinus tuberculoma

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Background: Central nervous system tuberculoma is the most severe manifestation of extrapulmonary tuberculosis with high mortality. Cavernous sinus tuberculoma (CST) is a very rare central nervous system tuberculoma with few cases reported in the literature.

Case Description: A 57-year-old woman was admitted to our clinic with acute diplopia and headache limited to the right side. There was no specific medical history except for migraine, depression, and anxiety, all of which were controlled by oral medications. Physical examination revealed ptosis and mydriasis in the right eye, which indicated right third and sixth cranial nerve palsies. Pituitary magnetic resonance imaging showed a right parasellar lesion at the cavernous sinus wall and ophthalmic nerve. Laboratory examinations and brain computed tomography scan showed negative findings. Initial differential diagnosis included meningioma, sarcoidosis, tuberculoma, and lymphoma. However, results of further studies, including blood and cerebrospinal fluid cultures and Mycobacterium tuberculosis DNA assay, were negative. Biopsy of the cerebral lesion was performed through the subfrontal approach, and histopathologic study confirmed CST. She was treated with a standard antituberculous regimen. After 12 months of follow-up, no cerebral or clinical findings were seen.

Conclusions: CST is a rare presentation of M. tuberculosis, and the diagnosis is a difficult challenge. However, accurate diagnosis and timely treatment of CST can result in complete cure.