A Case of Abducens Nerve Palsy as a Rare Feature of Tuberculosis Meningoencephalitis

Mohammad Rahmanian¹, Zahra Mosallanezhad², Mohamed Amin Ghobadifar³ and Safar Zarei*⁴

¹Department of Anesthesiology, Shiraz University of Medical Sciences, Iran
²Department of Obstetrics and Gynecology, Jahrom University of Medical Sciences, Iran
³Zoonoses Research Center, Jahrom University of Medical Sciences, Iran
⁴Department of Physiology, Jahrom University of Medical Sciences, Iran

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*Corresponding author: Safar Zarei, Department of Physiology, Jahrom University of Medical Sciences, Jahrom, Motahari Avenue, postal code 193, Jahrom, Iran

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Case Report

A 17-year-old woman from Iran country was admitted to Peymanieh hospital affiliated with Jahrom University of Medical Sciences complaining of fever, anorexia, photosensitivity, headache, agitation, confusion, impaired health status, positive signs of meningeal irritation, and diplopia of 2 days duration which developed overnight.

By suspicion to meningo-encephalitis tuberculosis which is confirmed by positive Lowenstein-Jensen culture for Mycobacterium Tuberculosis, we started treatment against tuberculosis with four agents together including (Rifampicin 750 mg + Ethambutol 1.5g + Isoniazide 250 mg + Pyrazinamide 1.5 g) with intravenous Ciprofloxacin. To reduce barin edema, dexamethasone was also injected. During treatment, because of increasing transaminase levels, we decreased Rifampicin doses. After 40 days treatment on these medications, her diplopia was disappeared with favorable evolution, and finally discharged in good general state, good orien-
tation, without fever and headache, and all general and neurological examinations were being normal.

**Discussion**

Features of prominent encephalitic are less commonly reported in spite of well description of tuberculous meningitis. The stage of disease at diagnosis may show the death and illness rate of neurotuberculosis. Tuberculous meningitis is associated with significant mortality and morbidity because of difficult in diagnosis which is dependent to a long term of therapy. Changes in mentation, fever, meningismus, headache and focal neurologic deficits are symptoms and signs of neurotuberculosis [2]. Ophthalmic pathologies and its complications such as; homonymous hemianopia, conjunctivitis, choroidal tuberculoma, third or sixth nerve palsies, and nystagmus have also been reported. The oculomotor nerve involvement can happen because of basal meningitis in the base of brain, due to a tuberculoma positioned in the midbrain region [3]. Three different types of categorize for this disease are described based on examination findings.

Headache, malaise, and fever without cranial nerve impairment are described as Stage 1. Paresis and focal seizures due to single cranial nerve impairment are the presence of Stage 2. High rate of neurologic sequelae despite therapy such as multiple cranial nerve paraplegia, palsies, or hemiparesis, and comatose or stuporous have marked as Stage 3. Furthermore, optic nerve and third nerve involvement are associated with stage 3 of tubercular Meningoencephalitis. Neuro-ophthalmic features which are common in the elderly are associated with stage 3 of tubercular Meningoencephalitis [1]. Appropriate therapy with the timing of the initiation may improve the prognosis of tuberculous meningitis. Severe neurological sequelae and poor prognoses are results of delays in treatment and diagnosis [3]. In summary, when a patient with tuberculous meningitis presents with abducense nerve palsy, rapid re-diagnosis should be undertaken and proper treatment initiated, because the prognosis is critically dependent on the timing of adequate treatment.

**References**