

**Case Report**

**Central nervous system tuberculomata presenting as Lateral rectus paresis and papilloedema without meningismus;A case Report.**

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**Abstract:** Tuberculosis still remains one of the major infectious disease among developing countries. Ocular involvement in CNS tuberculosis although uncommon presents as a diagnostic challenge. We here by report a case of 12 yr old girl who presented with intermittent diplopia and headache. On Examination she was found to be having Unilateral lateral rectus palsy and papilledema . Investigations revealed multiple CNS tuberculomata extending into the mid brain. The patient responded well to tuberculous chemotherapy. The presentation of extra pulmonary tuberculosis can challenge the diagnostic skills of clinician and lead to delay in diagnosis and management of disease hence a high index of suspicion should be kept in cases presenting with ocular nerve palsy and papilloedema.

**Key Words :** Tuberculosis ,Tuberculomata, Papilloedema.

**Introduction**

Tuberculosis remains a major global problem and public health issue of considerable magnitude. The incidence of tuberculosis varies from 9 cases per 100000 population per year in US to 110-165 cases per 100000 populations in developing countries of Asia and Africa.<sup>1</sup>It has been estimated that approximately 10% of all patients with tuberculosis have CNS involvement.<sup>2</sup>The bacilli reach the CNS by haematogenous route secondary to disease elsewhere in the body. <sup>3</sup>The ophthalmic findings are usually associated with later stages of tuberculosis and suggest a worse prognosis than those with no ophthalmological sequelae. The typical ophthalmological presentation includes uveitis, papilledema, retinal haemorrhages and optic neuritis .<sup>4</sup> We report a case of 6<sup>th</sup> cranial nerve palsy secondary to Central nervous system tuberculosis.

**Case report**

A 12 year old girl was referred to eye clinic with chief concern of intermittent diplopia and headaches for the last 2 months. She also gave a history of fever off and on since then. She was diagnosed as typhoid by paediatrician and was treated for the same 2 months back. On Examination her Best Corrected Visual Acuity was OD 20/20 ( - 2.25Ds)and OS 20/20 ( -1.50 Ds). Slit lamp examination showed normal Pupillary reaction, equal to light and accommodation. Gross observation of anterior segments was normal. Dilated fundus examination was remarkable for bilateral disc edema as shown in Fig 1. Orthoptic evaluation revealed sixth nerve palsy of the right eye as shown in Fig 2. Other cranial nerve tests were normal.

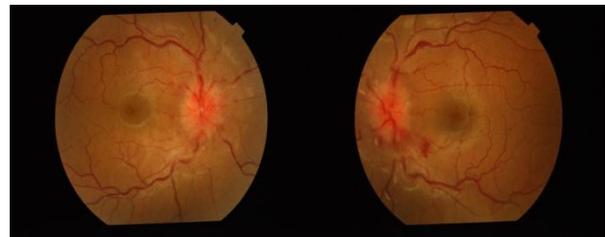


Figure 1:

**Orthoptic Evaluation**

Fixation Preference	LE
Head Posture	Face turn to right
Hirschberg’s test	7degree RET
Nystagmus	Absent
WFDT (Distance and Near)	Diplopia
Stereopsis	Unable to test
Cover test (Distance and Near)	Manifest RET

Table .1



Figure 2:

Investigations included a Mantoux test which revealed a patch of 20 mm X 25 mm within 48-72 hrs. USG abdomen Showed Hepato splenomegaly. Chest X-ray PA view showed Right pleural effusion. MRI brain and orbit revealed Ring enhancing lesions with multiple tuberculoma in left fronto parietal, temporal lobes with extension into the mid brain as shown in Fig 3.

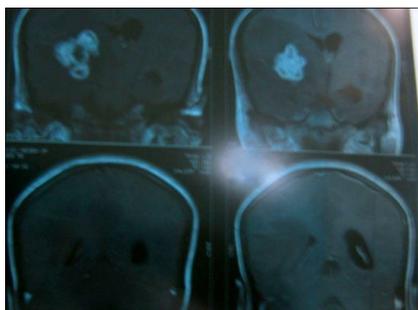


Figure 3:

A Diagnosis of Right Eye Abducent Nerve Palsy secondary to CNS Tuberculosis was made after Thorough Examination and Investigation. Prompt Treatment was started and the patient was given Tab. A-K urit-4, 3tabs daily (Anti Tubercular Drugs), Tab Pacimol sos., Tab defcort 30 mg OD. To avoid diplopia she was advised to patch one eye. After one week of treatment only Intermittent diplopia reduced.

### Discussion

Tuberculosis is a common infectious disease which spread primarily by inhalation of live Mycobacterium tuberculosis.<sup>5</sup> In developing countries CNS tuberculosis is a disease of young age group usually childhood.<sup>6</sup> Any abnormal increase in pressure or lesions of nerve will cause ipsilateral paresis of the lateral rectus muscle resulting in incommitant esotropia. Intracranial lesions are thought to be implicated in approximately 30% of all abducent nerve palsy.<sup>7</sup> If the palsy is secondary to intracranial lesions or infection, resolution usually occurs within months of initial pharmacological treatment.

Conclusion: Tuberculosis is a common disease and known mediator of cranial nerve palsies in children and adult. Its pharmacological treatment, recognition and management of nerve palsies extending through and beyond the systemic treatment is necessary. All the clinicians should be aware of it, 6<sup>th</sup> nerve palsy could be a clue to systemic diseases.

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