Case Report

Current Trends in Ophthalmology

Disseminated Tuberculosis in a Postpartum Young Women Presenting as Isolated Optic Neuritis

Sivakumar P^{1*}, Nikhil J¹ and Anupama J¹

Department of Ophthalmology, Aravind eye care, Neuro ophthalmology, Pondicherry, India

***Correspondence:** Priya Sivakumar, MS Ophthalmology, Aravind eye care, Thavalakuppam, Pondicherry, 605007, India, Tel: 91-8438213123; E-mail: priya86sundaralakshmi@gmail.com

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Abstract

Tuberculosis (TB) is the first infectious disease declared by the World Health Organization as a global health emergency. It remains the leading cause of death among infectious diseases causing more deaths worldwide than human immune deficiency virus (HIV) [1]. The following case report highlights the occult and non specific presentations of the disease which makes it a diagnostic challenge. We report a case of extensively disseminated tuberculosis in an immune competent post partum young woman presenting as isolated optic neuritis. Extra pulmonary tuberculosis is commoner among immune compromised patients. Co-existence of military and intracranial tuberculosis in an immune competent person is extremely rare.

Case Report

A 28 years old female patient presented with complaints of defective vision in her right eye for ten days which was sudden in onset, progressive and painful. Her best corrected visual acuity was 6/60 and 6/6 in right and left eyes, respectively. Right eye showed a grade 3 relative afferent papillary defect, painful extra ocular movements, disc edema with hyperemia (Figure 1), defective color vision tested using pseudo is chromatic Ishihara chart and markedly depressed visual field. Left eye was normal except for poor consensual reflex. Intra ocular pressures were normal. Systemic and other cranial nerves examinations were normal. She was a febrile with no palpable lymph nodes. She was 4 weeks post partum and lactating.

Hemoglobin, blood counts, blood sugar and erythrocytes sedimentation rate were within normal limits. Her Montoux was negative.

In spite of being chest asymptomatic, with normal blood investigations, negative Montoux reaction and clinical features pointing towards demyelinating optic

neuritis which is a clinical diagnosis not requiring Neuro imaging for confirmation, Neuro imaging was planned based on her history of worsening of vision beyond ten days. To our surprise, Magnetic Resonance Imaging (MRI) of brain showed multiple granulomatous lesions with ring enhancement in cerebral and cerebella hemispheres (Figure 2). Following which Computerized Tomography (CT) of chest showed military mottling (Figure 3), thus confirming the diagnosis of disseminated tuberculosis. She tested negative for HIV.

Discussion

Differential diagnosis of visual disturbance in the postpartum period is extensive and includes changes in corneal curvature, nonorganic factitious visual.

Dysfunction, retinopathy of eclampsia and anaemia, amniotic fluid embolization, disseminated intravascular coagulopathy, enlargement of pituitary adenoma, and cortical ischemic events. Pregnancy appears to be an immune protective period, but the postpartum period is immunologically prime for exacerbation of demyelinating or autoimmune diseases. Although the differential

diagnosis of optic nerve disease is varied, optic neuritis in the postpartum period usually reflects MS, as it does in any other young woman.

will either be observed for spontaneous recovery or administered high doses of systemic steroids, both of which can be disastrous.

Figure 1: Right eye fundus picture showing disc edema with hyperemia and normal macula, suggestive of papillitis form of optic neuritis.

Figure 3: CT chest showing innumerable, small, wide spread pulmonary nodules suggestive of disseminated tuberculosis.

Figure 2: MRI brain showing multiple, well defined, cystic, ring enhancing lesions of varying sizes with surrounding vasogenic edema suggestive of tuberculomas.

Optic neuritis defined as inflammation of optic nerve, is commonly due to demyelization associated with multiple sclerosis. It usually occurs in women less than 40 years and is characterized by acute unilateral visual loss, eye pain that worsens on movements, optic disc appearing either normal (64.7%) or swollen (35.3%) and spontaneous recovery starting within 2 to 3 weeks [2]. High dose corticosteroids fasten recovery [2]. In rare instances like our patient, occult infection can mimic demyelinating optic neuritis. If misdiagnosed, patient Cur Tre Opthol, 1(1): 46-48 (2018)

Optic Neuritis Treatment Trial (ONTT) states that optic neuritis is a clinical diagnosis and Neuro imaging is not mandatory for confirmation of the diagnosis². Potentially life threatening complications of intravenous steroids in an underlying unaddressed infection like tuberculosis was avoided with the help of judicious use of Neuro imaging.

Although rare, TB should be considered in the differential diagnosis of apparently isolated papillitis or Neuro retinitis [3]. Optic nerve involvement may be due to hematogenous dissemination, direct infection, and contiguous spread from choroid or from hypersensitivity to the infectious agent [4].

Intracranial TB usually presents with seizures, focal neurological deficits or mass effects [5]. Our patient did not have any neurological deficit other than unilateral defective vision. Negative Montoux reaction could be due to tuberculin anergy reported in military TB [6].

Latent military and intracranial tuberculosis in an immune competent young person presenting as isolated optic neuritis has not been reported earlier. This report highlights the rare associations of a common deadly infectious disease thus emplacing the importance of a high index of clinical suspicion in our present era of globalization.

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