Approach to tubercular disc edema

Sir,

We read with interest, the brief communication entitled, “A case of subretinal tubercular abscess presenting as disc edema” by Shetty et al. After going through the article, we would like to highlight certain points in the management of disc edema, especially in an Indian setting.

Tuberculosis (TB) is a great masquerade and can affect virtually any part of human body. Ocular TB, which can involve any segment of the eye, develops either from direct invasion by bacteria or from hypersensitivity reaction. Tuberculous optic neuropathy can manifest as papillitis, neuroretinitis, or optic nerve tubercle; of this, the most common manifestation is papillitis. Diagnosing extrapulmonary TB like ocular TB is a challenge due to difficulty in obtaining specimen for tests; hence, high index of suspicion is important in some appropriate clinical settings. TB should be considered as an important differential in an immunocompetent patient with optic neuritis even if he is asymptomatic otherwise.

In a young male presenting with gradual, painful diminution of vision over 25 days, the authors considered idiopathic optic neuritis as the probable diagnosis and administered intravenous methylprednisolone. However, in cases of disc edema, infectious, noninfectious, and autoimmune conditions such as neuroretinitis, multiple sclerosis (MS), diabetes, neoplasia, sarcoidosis, systemic lupus erythematosus, and rheumatoid arthritis should be kept in mind, and once we are sure of their absence, it should be labeled idiopathic.

In the case described in this article, magnetic resonance imaging (MRI) brain and orbit as baseline investigation for the optic neuritis would have been appropriate. At T2-weighted MRI, acute optic neuritis manifests as hyperintense signal in enlarged, enhancing optic nerve whereas chronic optic neuritis manifests as hypointense signal in an atrophic, nonenhancing optic nerve. It would not only have ruled out conditions such as MS (an important differential) but also have given an idea about possible tubercular involvement of optic nerve as well as brain.

Lifetime risk of developing active TB in latent TB (LTB) ranges from 5% to 10%. However, this risk increases manifold in those who become immunosuppressed. Steroid, which suppresses immunity, is known to cause flaring of the underlying TB infection and can lead to widespread dissemination. Hence, it is wise to seek actively, underlying TB infection before starting any immunosuppressant. Steroid should be started in a patient with disc edema only after ruling out active TB infection. A careful history for past tubercular infection or contact with a TB patient should be taken. History of malaise, weight loss, cough, or fever may point toward an underlying TB infection. History of childhood vaccination for bacillus Calmette-Guérin should be asked for. A good general physical examination may reveal lymph node enlargement, especially in cervical and axillary regions. A routine X-ray chest and ultrasound abdomen may be advised to look for evidence of TB on other sites. If these investigations raise some suspicion, contrast-enhanced computed tomography chest can be used to further characterize the lesion and ascertain disease activity. It is a good idea to involve a physician in the management of such cases.

Erythrocyte sedimentation rate and Mantoux test can be used as corroborative evidence. However, it must be stressed that blood-based ELISA tests (QuantiFERON Gold etc.) are not accurate for diagnosing TB in endemic country like India. Blood polymerase chain reaction tests for TB are unreliable and not recommended by any agency. The use of interferon-gamma release assays (IGRAs) for active TB results in unacceptably high rates of false-positive results because IGRAs cannot separate LTB infection from active TB disease. The WHO urged countries to ban inaccurate and unapproved blood tests and instead rely on accurate microbiological or molecular tests. On June 6, 2012, the Government of India issued a notification banning serological tests. However, it is rampantly used especially in private sector, a practice which needs to be strongly discouraged.

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Conflicts of interest

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