

Tubercular intermediate uveitis: The importance of meticulous multidisciplinary assessments

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Key words: Biopsy, caseous necrosis, intermediate uveitis, tuberculosis, uveitis

A 27-year-old Asian Indian female presented with chief complaints of repeated episodes of redness in both eyes (OU) for the past 1 year. The symptoms were insidious in onset with associated blurring of vision, floaters, and photophobia in OU. There was no history of any medical illnesses. Examination elsewhere revealed a 3.5 × 3 cm lobulated nodule in the superolateral quadrant of the left breast. She was diagnosed to have masquerade syndrome and referred to a higher center. On examination, the visual acuity recorded using Snellen's vision chart for distance vision was 20/40 OU. The intraocular pressure was 18 and 19 mmHg in the right eye (OD) and left eye (OS), respectively. Slit-lamp biomicroscopy revealed 1+ flare, 1+ cells, and fine dusting on the endothelial surface. No posterior synechiae were evident. Posterior segment showed media clarity grade 1, normal disc and vessels with anterior vitreous cells, and large, discrete, snow balls inferiorly OU [Fig. 1].

Fluorescein angiography showed bilateral focal vascular (perivenular) sheathing with leakage along superior and inferior temporal vascular arcades [Fig. 2]. She was advised Mantoux test, QuantiFERON TB Gold[®], contrast-enhanced computerized tomography (CECT) of the chest, and Venereal disease research laboratory (VDRL). QuantiFERON and Mantoux test were positive (20 × 25 mm; necrotic) [Fig. 1], and CECT chest showed 7 × 7 mm-sized pretracheal and precarinal lymph nodes, 12 × 11 mm-sized subcarinal lymph nodes on

the right side of esophagus, and a few axillary lymph nodes measuring upto 22 × 15 mm. There was no evidence of pleural effusion. The blood samples were negative for VDRL.

Examination by the pulmonologist revealed palpable enlarged lymph nodes in the left axilla, which were fixed, discrete with hard consistency. Ultrasound (USG) of the breasts showed bilateral oval hypoechoic, well-circumscribed nodules. Histopathological analysis of the USG-guided biopsy of the left breast nodule showed benign duct adenosis. Biopsy sections from axillary lymph nodes revealed ill-formed epithelioid cells, granulomas, and Langhans giant cells. Ziehl-Neelsen staining for acid-fast bacilli was positive confirming the diagnosis of tuberculosis [Fig. 3]. The patient was started on antitubercular therapy (ATT) along with oral steroids. Within 2 months of initiation of therapy, visual acuity improved to 20/20 OU with quiescent anterior chamber and resolved vitritis. The patient was advised to continue ATT (to complete the 9-month course) along with tapering of oral steroids.

Intermediate uveitis can be associated with a number of entities such as tuberculosis, sarcoidosis, Lyme's disease, and other rarer conditions such as demyelinating diseases and tubulointerstitial nephritis.^[1,2] It is well known that certain malignancies can masquerade as intraocular inflammation resulting in diagnostic delays. Systemic malignancies are known to present with vitreous inflammation (intermediate uveitis-like clinical presentation along with vasculitis). Our patient was initially misdiagnosed elsewhere as breast malignancy related uveitis.^[3] However, a detailed systemic examination, including basic investigations for infectious etiologies, and invasive biopsies (including axillary lymph node and breast nodule) provided the accurate diagnosis in our patient. Tuberculosis is an important cause of intermediate uveitis in endemic areas.^[4,5] Therefore, in such cases, the ophthalmologists' must work closely with physicians of other specialties including radiologists, pulmonologists/infectious disease specialists, general surgeons, and pathologists to provide appropriate therapy to the patient. This photoessay highlights the importance of tissue diagnosis and meticulous systemic assessments which aid in establishing a timely diagnosis for an otherwise well-known entity.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published

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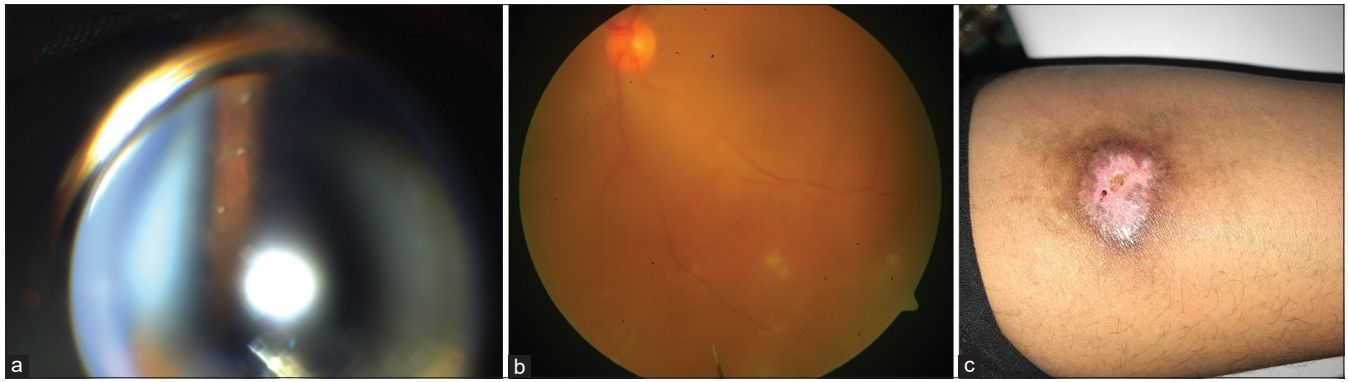


Figure 1: (a) Slit-lamp examination of the right eye using 90-D lens shows large snow balls in the inferior vitreous cavity. (b) Fundus photography shows media haze due to vitritis, focal vascular sheathing involving the venules of the inferior arcade, and large vitreous snow balls. (c) The Mantoux test result shows a large area of necrosis and induration

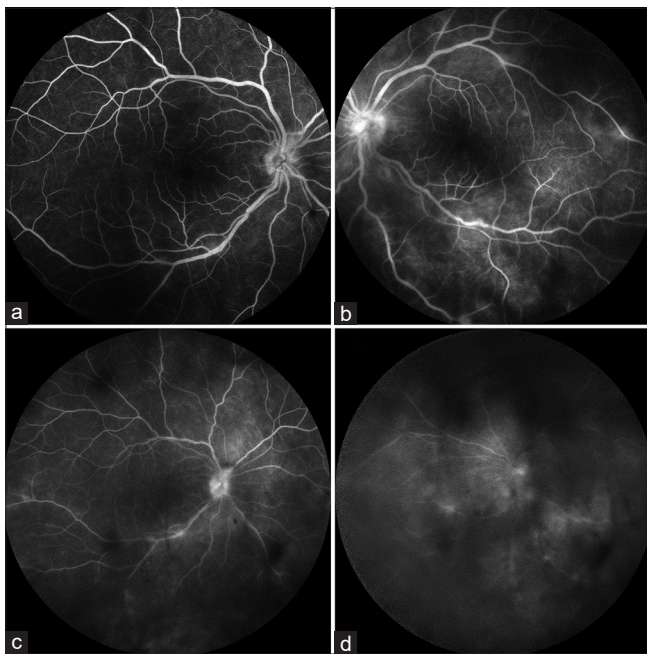


Figure 2: Fluorescein angiography early phase (a and b) and late phase (c and d) of both the eyes shows presence of focal retinal vasculitis (especially seen involving the large arcade venules in the left eye). There is focal vascular leakage in the late phase from large venules in the right eye along with leakage from small capillary bed. Vascular leakage is also seen in the late phase in left eye

and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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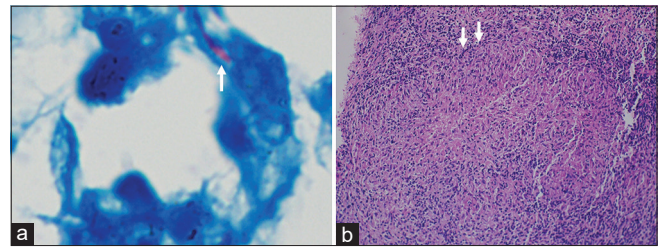


Figure 3: Histopathological examination with acid-fast (Ziehl-Neelsen) staining of the axillary lymph node (obtained from a biopsy) showed presence of acid-fast bacilli (white arrow) (a) The hematoxylin and eosin staining of the lymph node in low magnification power shows ill-formed epithelioid cells, granulomas, and giant cells (b) (white arrows) consistent with granulomatous inflammation due to tuberculosis

Conflicts of interest

There are no conflicts of interest.

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