**Tuberculin sensitivity test in uveitis: Immunological perspectives**

Dear Editor,

We laud Rathinam et al. for bringing out a much needed review on immunological tests in Uveitis. Granulomatous inflammations constitute a significant chunk of uveitis, both in peripheral and referral practices. We share additional immunological perspectives on Tuberculin sensitivity test (TST).

![Figure 1](image)

**Figure 1**: Sarcoid anergy, tuberculin test, and the status of cell-mediated immunity (CMI). (a) Sarcoid anergy is mediated through PGE2 and deficit of IL-2; it is reversed with Indomethacin, steroids, and exogenous IL-2 leading to delayed type (IV) hypersensitivity (DTH); (b) it shows the presence and size of the induration which in turn reflects the status of CMI against the mycobacterial antigens.

Despite being a common test, many healthcare workers misinterpret moderate positive response as tuberculosis and initiate antitubercular drugs even as many cases of ocular tuberculosis are immunologically driven. Similarly, a negative test is taken as anergy leading to the diagnosis of sarcoidosis. As such, a positive test merely suggests a past exposure to mycobacterial antigens and adequate cell mediated immunity (CMI).

In addition, many patients tend to have serial TSTs before finding their way to a tertiary center. This enhances the subsequent size of induration, just as past/ongoing steroid therapy would reduce it. Inadvertent boosting of tubercular hypersensitivity has aggravated inflammation leading to irreversible visual loss.

The peripheral anergy in sarcoidosis is a result a compartmentalization, whereby monocytes are actively recruited at the site of active inflammation. Anergy, earlier considered a result of steroid responsive suppressor T-cells, is mediated by monocytes through prostglandin (PGE2) & interleukin 1 and is amenable to drugs such as indomethacin and steroids [Fig. 1]. Positive TST in a case of sarcoidosis could imply reversal of anergy or concurrent tuberculosis. Unlike “in vitro” tests such as Interferon-γ release assays, conversion, reversal, and booster effects are unique to TST.

In summary, positive/negative TST can be compatible with both sarcoidosis and tuberculosis depending upon the CMI. Paucibacillary and military tuberculosis should be seen as a continuum akin to tuberculoid, indeterminate, and lepromatous leprosy. History of past TST and steroid treatment is crucial in the interpretation and the rare, but serious risk to visual functions should be borne in mind.
Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

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