

CORRESPONDENCE

Cerebrospinal fluid tests for neurosyphilis diagnosis

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Dear Editor,

We agree with Shiva *et al*¹ about the relevance of assessing *Treponema pallidum* particle agglutination (TPPA) titres in the cerebrospinal fluid (CSF) samples of patients with suspected neurosyphilis. For many years, we have been using *T. pallidum* haemagglutination test (TPHA) both in diagnosing neurosyphilis and in the follow-up of our patients after treatment. It would have been interesting to know the trend of CSF-TPPA titres over time in Shiva's patients. We consider as serological cure in syphilis a fourfold decline in the initial TPHA titres within 12 months after therapy and a titre $\geq 1:640$ in CSF as specific for neurosyphilis diagnosis. At 12 months, 92% of our patients were serologically cured. The rate of concordance with venereal disease research laboratory (VDRL) is about 90% and the use of TPHA is crucial in patients in whom non-treponemal tests are negative. CSF treponemal tests can be useful in identifying asymptomatic neurosyphilis where VDRL sensitivity is only 10%. In our experience, TPHA-CSF dilution cut-off of $\geq 1:640$ has a high diagnostic specificity in diagnosing neurosyphilis. The concordance with VDRL-CSF positivity is 100%. There is no clear consensus on the diagnosis of neurosyphilis and it continues to be a problem relying on various combinations of reactive CSF tests results, alterations of cell count or proteins in the CSF or clinical manifestations.² Further studies with a well established criteria for neurosyphilis are needed to better

validate the utility of these and other markers. Among them is the evaluation of CXCL-13 levels,³ a B-cell-attracting chemokine, which increases in patients with neurosyphilis and declines after therapy. Remarkably, this chemokine increases also in asymptomatic neurosyphilis and can be used to confirm or deny a neurosyphilis in patients with CSF pleocytosis, as happens in patients with HIV infection or in patients with nonreactive CSF-VDRL (50%–70% of neurosyphilis).³

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