CORRESPONDENCE

Cerebrospinal fluid tests for neurosyphilis diagnosis

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Dear Editor,

We agree with Shiva et al1 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 ≥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 ≥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).4

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