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Letter

Syphilis is a resurgent sexually transmitted infection in the UK which is disproportionately diagnosed in patients living with HIV, particularly men who have sex with men. Evidence exists to suggest that syphilis presents di erently in patients with HIV, particularly in those with severe immunosuppression. Progression to neurosyphilis is more common in HIV co-infection and can be asymptomatic, o en for several years. Symptoms of neurosyphilis vary but can include meningitis, meningo vascular disease, general paresis and tabes dorsalis. Debate exists surrounding in which circumstances to perform a lumbar puncture and the current gold standard diagnostics have inadequate sensitivity. We recommend a pragmatic approach to lumbar punctures, interpretation of investigations, and when to consider treatment with a neuro penetrative antibiotic regimen [1].

Syphilis, caused by the spirochaete bacterium Treponema pallidum, has seen a resurgence in high-income countries in recent years, particularly among men who have sex with men. e widespread availability of penicillin in the United States and other industrialized countries following World War Two resulted in rates of syphilis falling from 76 per 100,000 populations in 1945 to 4 per 100,000 in 1955-57. A er this period syphilis became concentrated within men who have sex with men and incidence surged during the 1980s HIV/AIDS epidemic. In response to the fear induced by the epidemic, changes in sexual behaviour caused another decline until recently where rates have risen rapidly again. In the United States during 2014-2015 syphilis occurred in 7.5 cases per 100,000, the highest rate since 1994. Similar trends were seen in England where in 2016 the number of cases was 5920, 12% higher than the previous year and the highest number of new diagnoses since 1949, with 80.9% of cases reported in men who have sex with men.

Syphilis infection involves a number of stages. Primary syphilis classically presents 9-90 days a er infection with a single, non-tender genital ulcer called a chancre which represents the rst site of *T.pallidum* invasion. If untreated, primary infection progresses to secondary syphilis, typically 12 weeks, but sometimes up to 12 months a er initial infection. e classic presentation of secondary syphilis is a

12 cells/ µL, predominantly lymphocytes, and CSF VDRL is negative.

e bloods suggest either primary syphilis or a previously treated infection. Correlating this with previous serology and a good history should help to establish which. If primary syphilis is likely then this event signi es neuro invasion of *T.pallidum* which is o en cleared spontaneously by patients but given the symptoms and pleocytosis he should be treated with a neuro penetrative penicillin regimen. If this is not a case of primary syphilis then other causes of his symptoms and pleocytosis, such as a viral meningitis, should be sought [5].

is man has certainly had syphilis in the past and he may well have been treated without remembering. However, his bloods may indicate late-latent infection which may be the cause of his cognitive impairment. A negative CSF-VDRL does not rule out this diagnosis and he should be treated for neurosyphilis whilst continuing other investigations for his cognitive decline.

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