Correspondence

Predictors of Serological Cure After Treatment of Early Syphilis

To the Editor—We read with interest the report by Seña et al [1] on the predictors of serological cure or development of serofast state in human immunodeficiency virus–negative individuals who receive treatment for early syphilis. The study addresses the important issue of predicting which individuals will not achieve an adequate serological response measured by reversion of nontreponemal test to negative or a 4-fold decline in titers. The authors identified age, number of sex partners, baseline rapid plasma reagin (RPR) titer, syphilis disease stage, and development of Jarisch-Herxheimer reaction (JHR) as correlated with the likelihood of cure at 6 months. Two points are worth mentioning: First, <10% of participants screening positive for syphilis were enrolled in the study, introducing concern about the representativeness of the data. Second, the authors conclude that development of JHR is predictive of cure. This conclusion may not be supported by the data failing to reach significance for this association (P = .08). Moreover, the subsequent multivariate analysis that the authors conducted further weakened the association. This latter observation is not surprising given the postulated mechanism that underlies the appearance of this reaction: Release of endotoxin or treponemal lipopolysaccharide [2, 3] or with release of proinflammatory cytokines upon treatment of syphilis has been demonstrated in 2 studies. Levels of tumor necrosis factor, interleukin 6, and interleukin 8 were shown to correlate with symptoms of JHR [4, 5]. The occurrence of JHR has been recently shown to correlate with pretreatment RPR, the risk for the reaction increasing by 19% for each 2-fold increase of RPR titer, suggesting that the higher baseline load of organisms may drive the observed risk of JHR either directly through intrinsic spirochetal factors or through induction of proinflammatory cytokines [6].

It is therefore premature to conclude, based on a nonsignificant association and in presence of potential confounding factors (ie, age, RPR titer), that the occurrence of JHR is associated with serological response to treatment of early syphilis.

Note

Potential conflicts of interest. Author certifies no potential conflicts of interest. The author has submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

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References


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