Abstract

Background Behcet’s disease (BD) is a chronic, inflammatory, multisystem vasculitic disorder. There is no reliable laboratory marker that indicates disease activity. Neopterin is an immunological marker of cellular immune activation, which is secreted by monocytes/macrophages as a result of interferon-gamma (IFN-c) secretion by activated T lymphocytes.

Objective We aimed to investigate serum and urine neopterin levels in BD patients.

Methods Forty-five patients who were diagnosed according to the criteria of the International Study Group for BD and 45 age- and sex-matched healthy controls were enrolled in the study. Disease activity was considered by clinical findings.

Serum and urine neopterin levels and serum IFN-c levels were measured.

Results The mean values of serum and urine neopterin levels were 12.68 ± 4.87 nmol/L and 167.53 ± 148.73 lmol/mol creatinine, respectively, in BD patients (P < 0.000 and P < 0.008, respectively), which were statistically significantly different from the control group. However, there was no significant statistical difference between serum and urine neopterin levels of the clinically active and inactive patients. It was also found that the mean value of serum IFN-c levels was higher in healthy controls than in BD patients (P < 0.000).

Conclusions We conclude that serum and urinary neopterin measurement can not be used as a reliable laboratory marker as the BD patients’ serum and urinary neopterin levels do not increase in the active stage even though these levels increase when compared to healthy controls.