OBJECTIVE:

The aim of this study was to evaluate the effects of periodontal treatment on serum and gingival crevicular fluid (GCF) proinflammatory cytokine levels in hyperlipidemic patients with periodontitis.

MATERIALS AND METHODS:

Fifty-two patients with hyperlipidemia and periodontitis and 28 systemically healthy controls with periodontitis (C) were included in the study. Hyperlipidemic groups were divided into two groups as suggested diet (HD) and prescribed statin (HS). The clinical periodontal parameters, fasting venous blood, and GCF samples were obtained, and serum tumor necrosis factor-alpha (TNF-α), interleukin (IL) 1-beta, and IL-6 levels were evaluated at baseline and at 3 months follow-up (3MFU) after the completion of the non-surgical periodontal treatment that included scaling and root planning.

RESULTS:

Percentage of bleeding on probing was significantly higher in the HS group than both the HD and C groups. In the HD and HS groups, there were significant decreases in serum IL-6 and GCF TNF-α levels between the 3MFU and baseline. A significant decrease was also found in GCF IL-6 at the end of the study period in the HS group.

CONCLUSION:

The combination of the periodontal therapy and antilipemic treatment may provide beneficial effects on the metabolic and inflammatory control of hyperlipidemia.