Aim:

The aim of this study was to evaluate serum levels of 8-hydroxydeoxyguanosine (8-OHdG), an oxidative stress parameter, in patients with chronic periodontitis and hyperlipidaemia.

Material and Methods:

Thirty six hyperlipidaemic (HD) patients
and 38 systemically healthy controls (C) were included in the study. Both groups were divided into two subgroups as healthy (h) and periodontitis (p). The clinical periodontal parameters including plaque index (PI), gingival index (GI), probing pocket depth (PPD), clinical attachment level (CAL) and percentage of bleeding on probing (BOP %) were recorded. Fasting venous blood samples were obtained to assess serum lipids and 8-OHdG levels.

Results:

The HDp group had higher the ratio of total cholesterol (TC) to high density lipoprotein cholesterol (HDL) (TC/HDL) and triglyceride levels in comparison with the HDh group (p<0.01). The HDp group showed a higher PPD, BOP% and CAL levels than the Cp group (p<0.01). The serum level of 8-OHdG was significantly higher in the HDp group when compared with the Cp and Ch groups (p<0.01). In the HDp group, BOP % was positively associated with serum TC, TC/HDL and 8-OHdG levels (p<0.01).

Conclusion:

Serum 8-OHdG levels may play a potential role in
the association between hyperlipidaemia and periodontitis.