

## Comparison of Osteoprotegerin and VEGF in normo albuminuric type 1 diabetic and control subjects

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**Background:** The aim of the current study was to evaluate the association of osteoprotegerin and vascular endothelial growth factor (VEGF) with glycaemic indices and diabetes status.

**Methods:** A total of 44 normoalbuminuric type-1 diabetic patients and 44 healthy control subjects, matched for age, body mass index, sex ratio and lipid measures were enrolled.

Univariate and multivariate logistic regression analyses were used to determine the association of osteoprotegerin and VEGF with diabetes status. Further, linear regression analysis was performed to investigate the roles of osteoprotegerin and VEGF as determinants of hemoglobinA1c (HbA1c).

**Results:** Osteoprotegerin and VEGF were significantly elevated in diabetic subjects ( $2.76\pm 0.85$  vs.  $2.26\pm 0.75$  pmol/l and  $187.1\pm 92.7$  vs.  $125.9\pm 52.3$  pg/ml, respectively,  $P < 0.01$ ) and were positively correlated with glycaemic indices (i.e. fasting plasma glucose and HbA1c,  $P < 0.001$ ). After controlling for possible confounding factors odds ratios (confidence interval) of osteoprotegerin and VEGF for diabetes were 2.532 (1.003-6.392) and 1.021 (1.002-1.041), respectively ( $P < 0.05$ ). Further, linear regression analysis revealed that the association of osteoprotegerin with HbA1c is independent of VEGF and vice versa ( $P < 0.001$ ).

**Conclusion:** Osteoprotegerin and VEGF are elevated in normoalbuminuric type 1 diabetic subjects and are independently associated with glycaemic indices and diabetes status.

### Biography

Alireza Arefzadeh has completed his General Physician at the age 26 years from Esfahan University of Medical Sciences and postgraduate studies in Internal Medicine field from Tehran University of Medical Sciences, and postgraduate in Endocrinology and Metabolism Subspecialty from Tehran University of Medical Sciences. He is a clinician and researcher in IRAN. He has published many books and articles in journals.

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