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Serum vascular endothelial growth factor, transforming growth factor- β 1 and nitric oxide levels in patients with psoriasis vulgaris: Their correlation to disease severity

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Background: Vascular endothelial growth factor (VEGF), transforming growth factor- β 1 (TGF- β 1) and nitric oxide (NO) have been reported to be contributory factors to the pathogenesis of psoriasis vulgaris.

Objective: We aimed to investigate the association between the levels of VEGF, TGF- β 1 and NO and psoriasis severity (as expressed by psoriasis area severity index, PASI).

Methods: Fifty eight patients with psoriasis vulgaris and 22 normal health subjects were included in the study. The serum levels of VEGF and TGF- β 1 were estimated by ELISA technique. The serum levels of NO were determined by colorimetric method.

Results: The serum levels of VEGF, TGF- β 1 and NO were significantly higher in patients than controls. Moreover, the serum levels of the studied biochemical variables in patients with severe disease activity were significantly higher than mild cases. The duration of disease showed significant positive correlations with each of VEGF ($r=0.35$, $P<0.01$) and TGF- β 1 ($r=0.41$, $P<0.05$). In addition, the PASI score was significantly positively correlated with VEGF ($r=0.65$, $P<0.001$), TGF- β 1 ($r=0.31$, $P<0.05$) and NO ($r=0.51$, $P<0.001$).

Conclusion: These findings suggest an association between psoriasis disease severity and serum levels of VEGF, TGF- β 1 and NO levels, which can be recognized as markers of the psoriasis severity. The modulation of their production may represent a therapeutic potential strategy for psoriasis.

Biography

Hani Al-Shobaili, Associate Professor and Consultant Dermatologist, he got his program degree at 2006 from Saudi Council for Health Specialties. He is the Head of Dermatology Department, College of Medicine, Qassim University, Saudi Arabia. He has published more than 30 papers in reputed journals.

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