Clinical significance of serum interleukin-23 and A/G gene (rs17375018) polymorphism in Behçets disease: Relation to neuro-Behçet, uveitis and disease activity

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Objective: The aim of this work was to measure the level of serum Interleukin-23 (IL-23) and assess its genotypes in Behçets Disease (BD) patients and to study the clinical significance and relation to disease activity.

Patients & Methods: Fifty BD patients and 30 age and sex matched controls were included. Disease activity was assessed using BD Current Activity Form (BDCAF). Serum IL-23 was quantified by ELISA and (rs17375018) genotyping performed by real time PCR-allelic discrimination technique.

Results: The serum IL-23 level was significantly higher in patients compared to the control (p<0.0001). The IL23 genotypes were comparable between patients and control. Genotype in neuro-Behçets patients was AA (5.3%), AG (36.8%) and GG in 57.9% and those without: AA (22.6%), AG (35.5%) and GG (41.9%). Those with uveitis had AA (8.3%), AG (33.3%), GG (58.3%) while those without had AA (23.1%), AG (38.5%) and GG (38.5%). The IL-23 level according to the three genotypes was insignificantly different (p=0.18). The BDCAF was significantly lower in those with AA genotype (1.88±1.13) compared to AG (2.06±1.39) and GG (3.17±1.49) (p=0.02). IL23 level significantly correlated with the BDCAF (r=0.62, p<0.0001) and disease duration (r=0.42, p=0.002).

Conclusion: This is the first study to report the possible role played by IL-23 and its gene polymorphism in neuro-BD and not only uveitis with a significant relation to disease activity, making both potential markers. Larger scale multi-centre longitudinal studies are required to confirm its role in the pathogenesis of neuro-Behcet's and its impact on response to therapy.

Biography

Tamer A Gheita (MD) is a Professor of Rheumatology & Clinical Immunology at Kasr Al-Ainy School of Medicine, Cairo University. He attained the EULAR Certificate for Rheumatic diseases, Zurich, Switzerland (2012) and is Editor-in-Chief of the Egyptian Rheumatologist (Elsevier). He is serving as an Editorial Board Member of the European and African Journals of Rheumatology, International Journal of Rheumatic Diseases and the Annals of Pediatric Rheumatology. He has published more than 80 papers in reputed journals and several books. He is a Consultant at many JCI accredited hospitals and shared in several medical convoys to underprivileged communities.

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