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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-Behçet'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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