Assessment of the role of interleukin-23 in ankylosing spondylitis

Dana M Tofiq

University of Sulaimani, Iraq

Abstract

Background: Ankylosing spondylitis (AS) is a chronic inflammatory disease affecting spine, sacroiliac joint and less frequently peripheral joints. Although, there is a strong hereditary component marked by the strong association with HLA-27 in more than 85% of patients with AS; the pathogenesis of AS is still not fully understood. Some inflammatory cytokines also play major role in AS pathogenesis. IL-23 regulates Th17 function, proliferation and IL-17 production which promote inflammation and bone and cartilage destruction when expressed chronically and in inappropriate locations. Objectives: To assess serum IL-23 level in AS patients and controls and its association with disease activity. Patients & Methods: 45 AS patients and 45 apparently healthy controls included in this cross sectional study. Other than comparing serum IL-23 level in AS patients with controls; we compared serum IL-23 level in AS patients on biologic with those non-biologic treatment. Assessment of disease activity was done by Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) and spinal mobility by Bath Ankylosing Spondylitis Metrology Index (BASMI) for any association with serum IL-23 levels. Results: Serum IL-23 levels were significantly higher in AS patients in comparison with healthy controls and patients on biologic therapy had lower levels of IL-23 level than those patients on non-biologic therapy. In the AS patients, the BASDAI and BASMI scores had no correlation with serum IL-23 level. Conclusions: Higher serum IL-23 levels in AS patients reflect the role of IL-23 in the pathogenesis of AS; and the future potential role of IL-23 in practice as both a biomarker and therapeutic target.

dana.tofiq@univsul.edu.iq

Note: This work is partly presented at 11th International Conference on ALLERGY, ASTHMA & CLINICAL IMMUNOLOGY, September 07-08, 2017 | Edinburgh, Scotland