PSORIASIS

POLYMORPHISMS ASSOCIATED WITH ANTI-TNF RESPONSE IN PATIENTS WITH PSORIASIS AND PSORIATIC ARTHRITIS

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Introduction: Psoriatic Arthritis (PsA) is a chronic inflammatory musculoskeletal disease associated with psoriasis that results from the interaction between environmental and genetic factors. Tumor necrosis factor α (TNF) plays an important role in the development of this disease. Thus, anti-TNF drugs (adalimumab, etanercept and infliximab) are good therapeutic options for patients who present PsA and psoriasis. Although anti-TNF agents are effective, not all the patients present an adequate response to these drugs.

Objective: To identify biomarkers that could predict anti-TNF drugs response in PsA and psoriasis patients.

Material and methods: DNA was isolated from peripheral blood cells of 20 patients who had both psoriasis and PsA, treated with anti-TNF drugs. Three SNPs located on TNF promoter were evaluated by PCR. Moreover, ten polymorphisms located in genes related with TNF were genotyped with the Illumina Veracode genotyping platform. Anti-TNF drugs' effectiveness on PsA was assessed by the Numeric Rating Scale for Pain (NRS) and the EuroQol Quality of Life Visual Analog Scale (EQ VAS). The improvement of psoriasis severity was measured by the Psoriasis Area and Severity Index (PASI).

Results: rs6920220 and rs610604 (TNFAIP3) SNPs showed a significant association with an improvement of EQ VAS at 3 months of treatment both in the univariate and the multivariate analysis. The association of rs6920220 and EQ VAS improvement was confirmed at 6 months of treatment. rs6920220 (TNFAIP3) also showed a significant association in the univariate regression with a 50% improvement of NRS and PASI75 (75% improvement with respect to baseline PASI). However, this association was not confirmed by the multivariate analysis.

Conclusions: rs6920220 and rs610604 (TNFAIP3) have been associated with an improvement of EQ VAS of PsA and psoriasis patients treated with anti-TNF drugs. These

results should be validated in large-scale studies before implementation in clinical practice.