



POSTER PRESENTATION

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MCP-1, CCR2 and CCR5 polymorphisms in Tunisian patients with atopic asthma

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From 6th European Workshop on Immune-Mediated Inflammatory Diseases
Nice, France. 23-25 November 2011

Background

Chemokines and their receptors play an important role in the late inflammatory stage occurring in asthma.

Objective

We aimed to investigate polymorphisms of MCP-1 (CCL2), CCR2 and CCR5 which can modify qualitatively and/or quantitatively their production and thus influence both susceptibility to asthma and its clinical and biological features.

Patients and methods

MCP-1 (A/G -2518), CCR2 (+/64I), CCR5 (G/A -59029) and CCR5 (Δ 32) polymorphisms were detected by PCR in 107 Tunisian patients with asthma and 169 healthy controls.

Results

We found no significant association between any of the four investigated polymorphisms and asthma. Nevertheless the haplotype MCP1*AG/CCR2*+/+ was significantly less frequent in patients (20,5%) than in controls (32,5%) $p=0,03$ OR=0,54 95% CI: 0,29-0,98. While no difference was observed in CCR2/CCR5 haplotypes between patients and controls.

Analysis of polymorphisms with clinical and biological features showed a non significant decrease of the frequency of MCP-1*G and CCR2*64I alleles in patients with severe disease, moreover the concomitant presence of MCP-1*G/CCR2*64I alleles was less frequent in severe forms (4,34%) than in other patients (12%) but the difference was no longer significant $p=0,27$. No associations were observed between the four polymorphisms and the

presence of atopic rhinitis or atopic conjunctivitis and an elevated rate of serum IgE over 200 UI/ml.

Conclusion

Polymorphisms of MCP-1 and its receptor CCR2 seem to be involved in disease-susceptibility to asthma in Tunisian; nevertheless they could be protective against its severe forms.

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Published: 23 November 2011

doi:10.1186/1479-5876-9-S2-P10

Cite this article as: Dhaouadi et al: MCP-1, CCR2 and CCR5 polymorphisms in Tunisian patients with atopic asthma. *Journal of Translational Medicine* 2011 **9**(Suppl 2):P10.

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