Matrix Metalloproteinase-9 (MMP-9) and Tissue Inhibitor of Metalloproteinase-1 (TIMP-1) as Non-Invasive Biomarkers of Remodelling in Asthma

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Abstract:

Abstract Rationale: Airway remodelling is clinically defined as persistent airflow obstruction despite aggressive antiinflammatory therapies. Assessment of airway remodelling by analysis of serum markers has been developed as minimally invasive procedures. Aim of the work: Evaluate the usefulness of estimation of serum MMP-9, TIMP-1 and their ratio, as non-invasive markers of airway remodelling in asthmatics. Patients and methods: The study included 68 asthmatics and 20 controls. Patients were classified according to levels of asthma control, severity and disease duration. Serum samples were taken to estimate levels of MMP-9, TIMP-1 and their ratio. Results: Serum MMP-9, TIMP-1, and MMP-9/TIMP-1 were significantly higher in asthmatics than controls, in uncontrolled vs. controlled asthma (P

Keywords:

Asthma; Remodelling; MMP-9; TIMP-1; Biomarkers

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