SOLUBILE TUMOR-ASSOCIATED ANTIGENS AND SECONDARY MALIGNANCIES IN AUTOIMMUNE-RHEUMATOID DISEASES

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SUMMARY

Due to the early diagnosis, modern therapeutic modalities and close follow-up of patients in rheumatology centers, there has been a substantial increase in the survival of rheumatoid arthritis (RA), lupus (SLE) and scleroderma (SSc) patients. As a consequence, long-term organ damage and chronic comorbidities, primarily vascular disorders and secondary malignancies have become major issues in relation to these diseases. There is increased cancer morbidity and mortality in autoimmune-rheumatic diseases. Furthermore, immunosuppressive therapies administered to RA, SLE as well as SSc patients may exert bimodal action on the incidence of secondary tumors. Yet, sustained inflammation is the primary risk factor int he development of malignancies in these conditions. Therefore, it is very important to diagnose and treat these patients early and tumor screening may be crucial in patients at high risk.

Tumor-associated antigens (TAA) may be involved in the pathogenesis and/or laboratory diagnostics of autoimmune-inflammatory diseases. By their sialylated carbohydrate motifs, they are involved in cell adhesion, thus most TAA-s are expressed on the surface of inflammatory leukocytes, as well as tumor cells. TAAs exert an important role in inflammation and metastasis formation. Shedding from the cell surface, they become soluble and detectable in the patients' sera. Results of this study indicate that the production of some TAAs, such as CEA, CA 19-9, CA 125, CA 15-3 and CA 72-4, may be increased in RA, SLE and SSc in comparison to control subjects. In addition, serum concentrations of some TAAs are correlated with indicators of disease activity, as well as some organ manifestations. Thus the detection of soluble TAAs may have pathogenic, clinical and prognostic relevances in autoimmune rheumatic diseases.

Assessment of the clinical aspects of secondary malignancies and soluble TAAs may help us to understand similar mechanisms of autoimmunity and tumorgenesis. These data also emphasize the important role of early diagnosis, screening, agressive treatment and close follow-up of autoimmune-rheumatic diseases.

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