

Screening for anti-SS-A antibodies is not indicated in patients with autoimmune thyroid disease

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Introduction. Anti-SS-A antibodies serve as a marker of primary Sjögren's syndrome. Antibodies to thyroid antigens, e.g. thyroperoxidase (TPO) and thyroglobulin (TG) is also a common finding in Sjögren's syndrome (SS) and autoimmune thyroid disease is overrepresented in SS. However, whether or not Sjögren's syndrome is more common in patients with autoimmune thyroid disease is a matter of dispute (1).

At the department of Clinical Immunology, we save all patient sera containing autoantibodies at -20°C. In order to analyse the occurrence of anti-SS-A antibodies in sera known to possess anti-thyroid antibodies (anti-TPO and/or anti-TG) we analysed anti-thyroid antibody-containing sera for the presence of anti-SS-A antibodies, regardless of underlying disease.

Materials and methods. 130 consecutive anti-thyroid antibody-containing sera from 1998 were collected from freezer, and screened for the presence of anti-SS-A antibodies by means of enzyme-linked immunosorbent assay, ELISA (Shield, Dundee, UK). 45 sera contained anti-TPO antibodies and anti-TG antibodies (ELISA kits from Cogent, Penicuik, UK), 58 sera contained anti-TPO alone, and 27 contained only anti-TG antibodies. Sera with positive anti-SS-A-screening results were further analysed by double radial immunodiffusion technique to confirm the presence of precipitating anti-SS-A antibodies. In 100 healthy blood donors (50 men, 50 women), precipitating antibodies against SS-A were not found in any case.

Results. Out of the 130 sera, we identified 4 (3%) with anti-SS-A antibodies as judged by ELISA. Only 2 of these (1.5% of total) were shown to possess precipitating anti-SS-A antibodies.

Discussion and conclusions. In this study we found precipitating anti-SS-A antibodies in only 1.5% of the anti-thyroid-antibody-containing sera. Our results support the view that primary Sjögren's syndrome is not overrepresented in patients with autoimmune thyroid disease. However, we do not know how many of the sera tested actually were taken from patients with autoimmune thyroid disease, although the patients were obviously initially selected for anti-thyroid antibody analysis owing to suspected autoimmune thyroid disease.

Our conclusion is that it is not worthwhile screening for anti-SS-A antibodies in patients with autoimmune thyroid disease.

References

1. Scofield RH. Autoimmune thyroid disease in systemic lupus erythematosus and Sjögren's syndrome. *Clin Exp Rheumatol* 1996; 14: 321-330.