

SIGNIFICANCE OF HUMAN THYROGLOBULINE ANTIBODIES IN FEMALE INFERTILITY

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Current guidelines for the laboratory and endocrine clinical practice attribute low relevance to measuring human thyroglobulin antibodies (Tg-Ab) in autoimmune thyroid diseases (AITD). This raises the question if preserving Tg-Ab as a routine investigation is necessary in patients with infertility or suspected AITD under present economic circumstances.

Several literature data support that thyroid specific auto-antibodies can be detected more frequently in infertile women than in healthy controls (30-35% and 5-10%, respectively). The pathogenic role of auto-antibodies has not clarified, yet. Nevertheless a number of studies suggest that infertile women with positive thyroid antibodies with proper medication can conceive and give life for healthy babies with good chance. Most work investigating the correlation between infertility and thyroid auto-antibodies do not identify the specific roles of the two relevant antibodies: thyroperoxidase antibody (TPO-Ab) and Tg-Ab.

Screening TPO-Ab is sufficient according to the generally accepted. Tg-Ab is considered to be less important.

Our aim was to investigate the specific roles of TPO-Ab and Tg-Ab in the background of female infertility when reviewing the data of the past 6.5 years.

Auto-antibodies were determined with commercial ELISA kits. We measured the thyroid antibodies of 11,034 patients with a mean age of 45.2 years. 800 patients out of them with a mean age of 36.2 years had a preliminary diagnosis of an infertility problem.

Results: we found an elevated Tg-Ab level with normal TPO-Ab value in 32 cases. In 7 out of the 32 cases the laboratory test was requested by the physician because of an infertility problem. 31 out of the 32 Tg-Ab positive but TPO-Ab negative patients were women. Among patients with infertility problem the rate of Tg-Ab positive but TPO-Ab negative result was 3 times higher than in patients with other problems. Our results indicate that isolated Tg-Ab positive cases occur more often in woman, especially in women with infertility. Therefore we consider the routine Tg-Ab measurement reasonable in female infertility. We suggest to take these results into account also in the laboratory and clinical practice.

POSZTERKÉNT KÍVÁNJUK BEMUTATNI