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**Introduction.** Thyroglobulin (TG) is a glycoprotein of 660 kDa localized in the colloid of the follicle while the thyroid peroxidase (TPO) is a membrane-bound glycoprotein of 105 kDa. Both are among the main thyroid auto-antigens. The presence of anti-TPO and anti-TG is considered a valuable diagnostic tool for chronic autoimmune thyroiditis, as well as in the differential diagnosis of hypothyroidism, including subclinical or latent forms. The determination of anti-TG and anti-TPO auto-antibodies is used as an exclusion test for thyroid disease, since over 98% of patients with autoimmune thyroiditis have auto-antibodies against either or both of the two autoantigens.

**Aim of the study.** Aim of this study was to evaluate the new Chorus kits for the quantitative measurement of anti-TG and anti-TPO (Diesse Diagnostica Senese SpA, Siena-Italy) by comparing the results with those of a commercial test (Immulite 2000 a-TG and a-TPO – Siemens).

**Materials and methods.** The study was carried out on a total of 200 routine sera for a-TG and 231 routine sera for a-TPO antibodies. A statistical correlation was performed on the obtained results and the relative Diagnostic Sensitivity and Specificity was calculated. For each test, ten samples at different titers, were used for intra-and inter-assay, inter-batch and inter-Chorus reproducibility studies.

**Results.** There has been a fair correlation between the two anti-TG detection methods (R 0.84). As regards the diagnostic accuracy, 73/78 sera a-TG Immulite positive sera were positive also by Chorus a-TG method (relative sensitivity: 93.6%) and 116/122 sera a-TG Immulite negative sera scored a negative result also with the Chorus a-TG method negative (relative specificity: 95.1%) with a correlation equal to 94.6%. The reproducibility, expressed as CV%, yielded the following results: intra-assay 8.0%, inter-assay 7.6%, inter-batch 7.4%, inter-Chorus 3.2%. A fair correlation was also observed between the two methods a-TPO detection (R 0.89). As regards the diagnostic accuracy 81/85 sera positive by Immulite a-TPO scored positive also with the Chorus a-TPO method (relative sensitivity: 93.8%) and 137/146 sera negative with a-TPO Immulite scored a negative results also with the Chorus a-TPO method (relative specificity: 95.1%) with a correlation equal to 94.4%. The reproducibility, expressed as CV%, yielded the following results: intra-assay 8.9%, inter-assay 9.8%, inter-lot 7.5%, inter-Chorus 3.6%.

**Conclusions.** The new DIESSE tests for the quantitative measurement of anti-TG and anti-TPO, showed performance comparable with those of the reference system (Immulite Siemens).