Autoantibodies against 21-hydroxylase in prediction of adrenal failure in APECED patients

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Objectives
To investigate sensitivity, specificity and predictive values (PPV, NPP) of autoantibodies against 21-hydroxylase in APECED patients with and without adrenal insufficiency (AI) and in patients with primary AI of other etiology.

Methods
42 patients with APECED and 24 patients with primary AI were recruited. All patients were tested for autoantibodies against 21-hydroxylase by ELISA

Results
67% (28/42) patients with APECED had AI. Autoantibodies against 21-hydroxylase were significantly associated with AI (p<0.0001). Specificity was 79%, sensitivity – 82%, PPV – 88%, NPV – 69%.

Two patients had positive 21-hydroxylase antibodies before the manifestation of AI (AI was diagnosed one year after blood sampling)

Three patients with AI and negative for 21-hydroxylase antibodies were tested more than 15 yrs after the debut of the AI.

Detection of autoantibodies against 21-hydroxylase is a reliable method to screen for autoimmune AI and could be recommended also for prediction of AI manifestation in patients with APECED.

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The authors declare that there are no conflicts of interests