

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

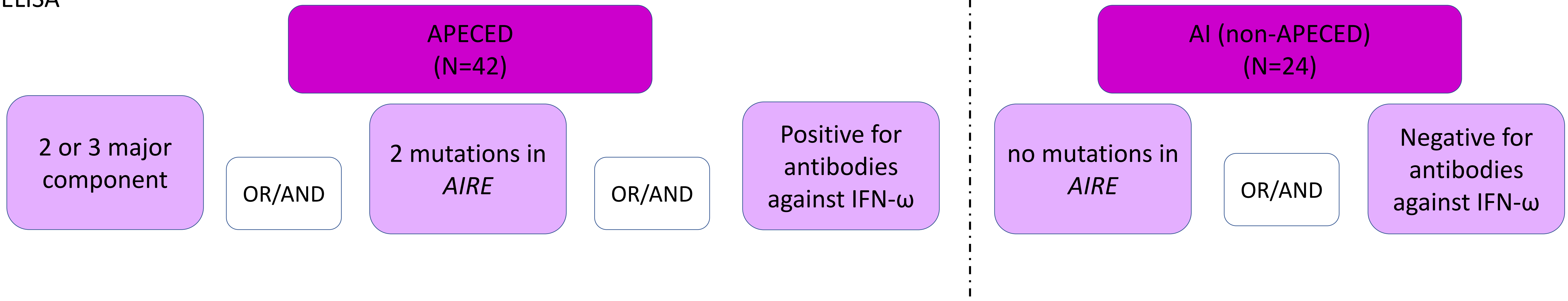
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## Objectives

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.

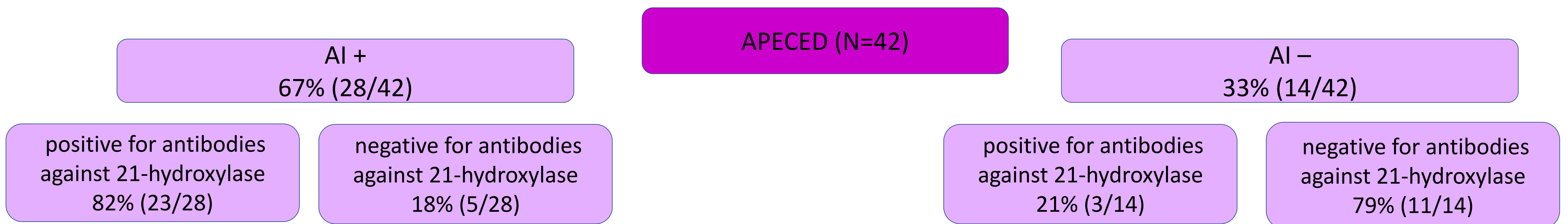
## Methods

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

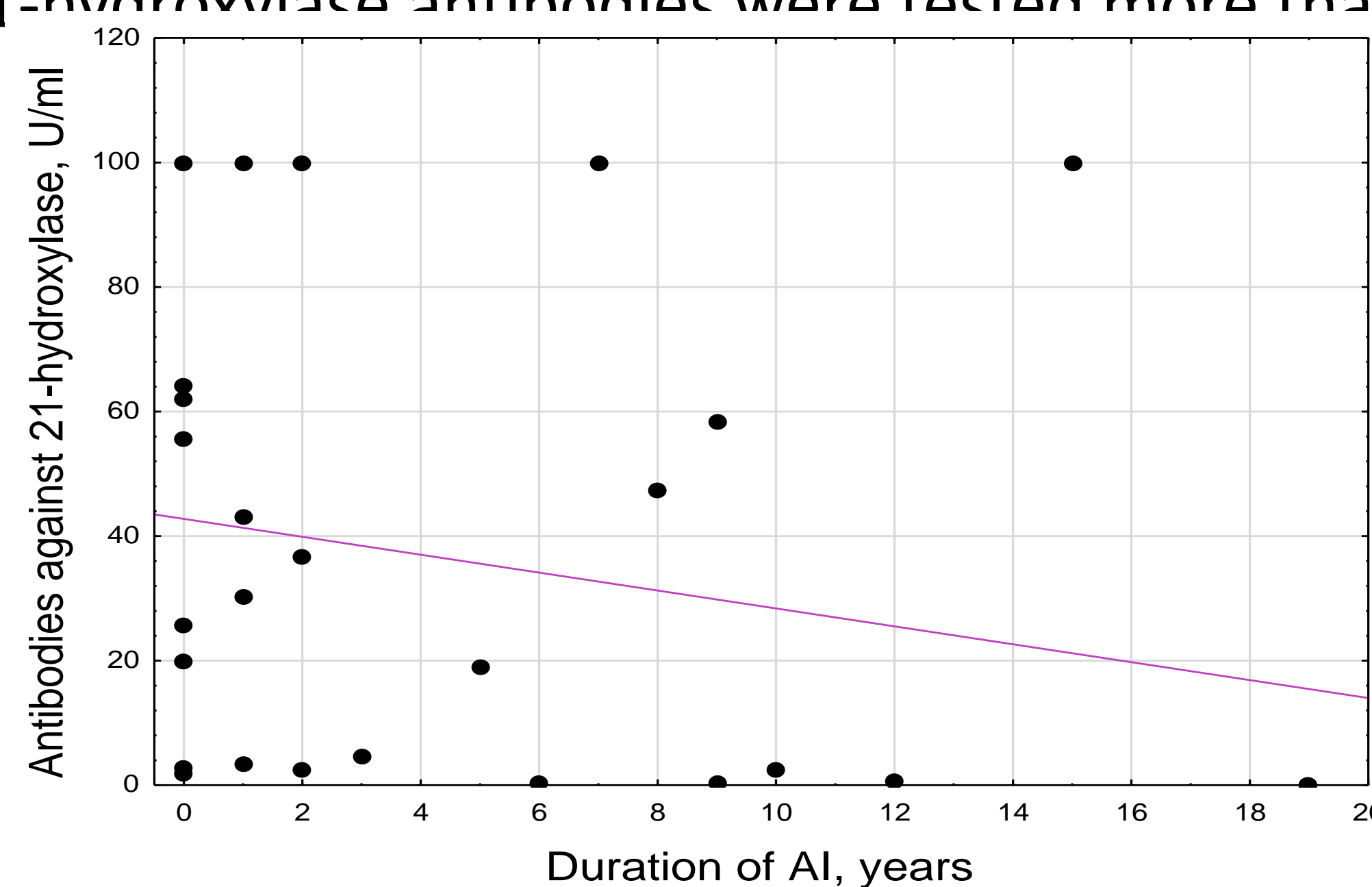


## Results

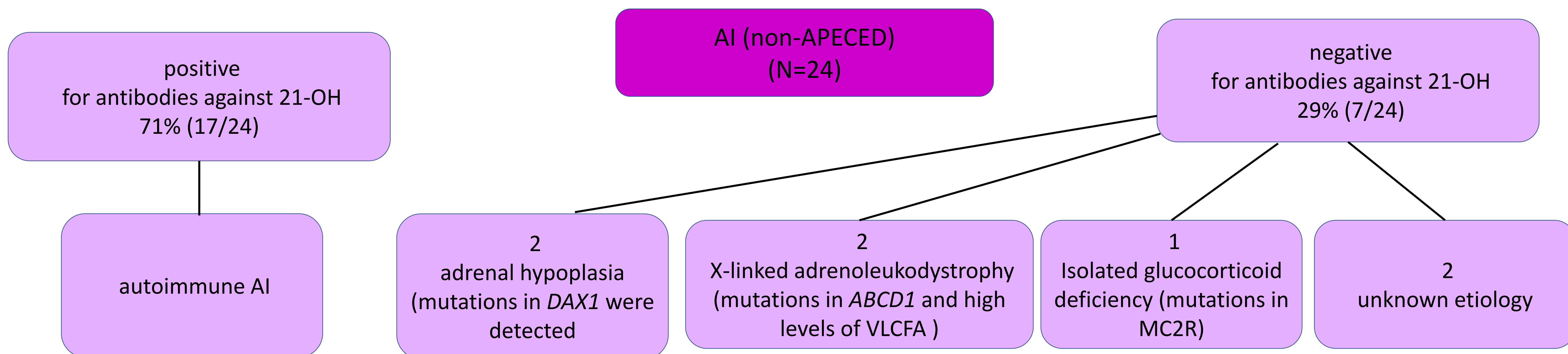
67% (28/42) patients with APECED had AI. Autoantibodies against 21-hydroxylase were significantly associated with AI ( $p < 0.0001$ ). Specificity was 79%, sensitivity – 82%, PPV – 88%, NPV – 69%.



- 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.



Pic.1 The level of antibodies against 21-hydroxylase and duration of AI by the time of the blood sampling (Spearman -0.396,  $p < 0.05$ ).



## Conclusions

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