

# Anti-PLA2R Antibodies Level at Diagnosis Predicts Spontaneous Remission of Idiopathic Membranous Nephropathy

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## OBJECTIVES

Evaluation of prognostic value of anti-PLA2R antibodies measured at the time of diagnostic biopsy in a cohort of idiopathic membranous nephropathy patients with a special focus on their ability to **early detect those who will achieve spontaneous remission**

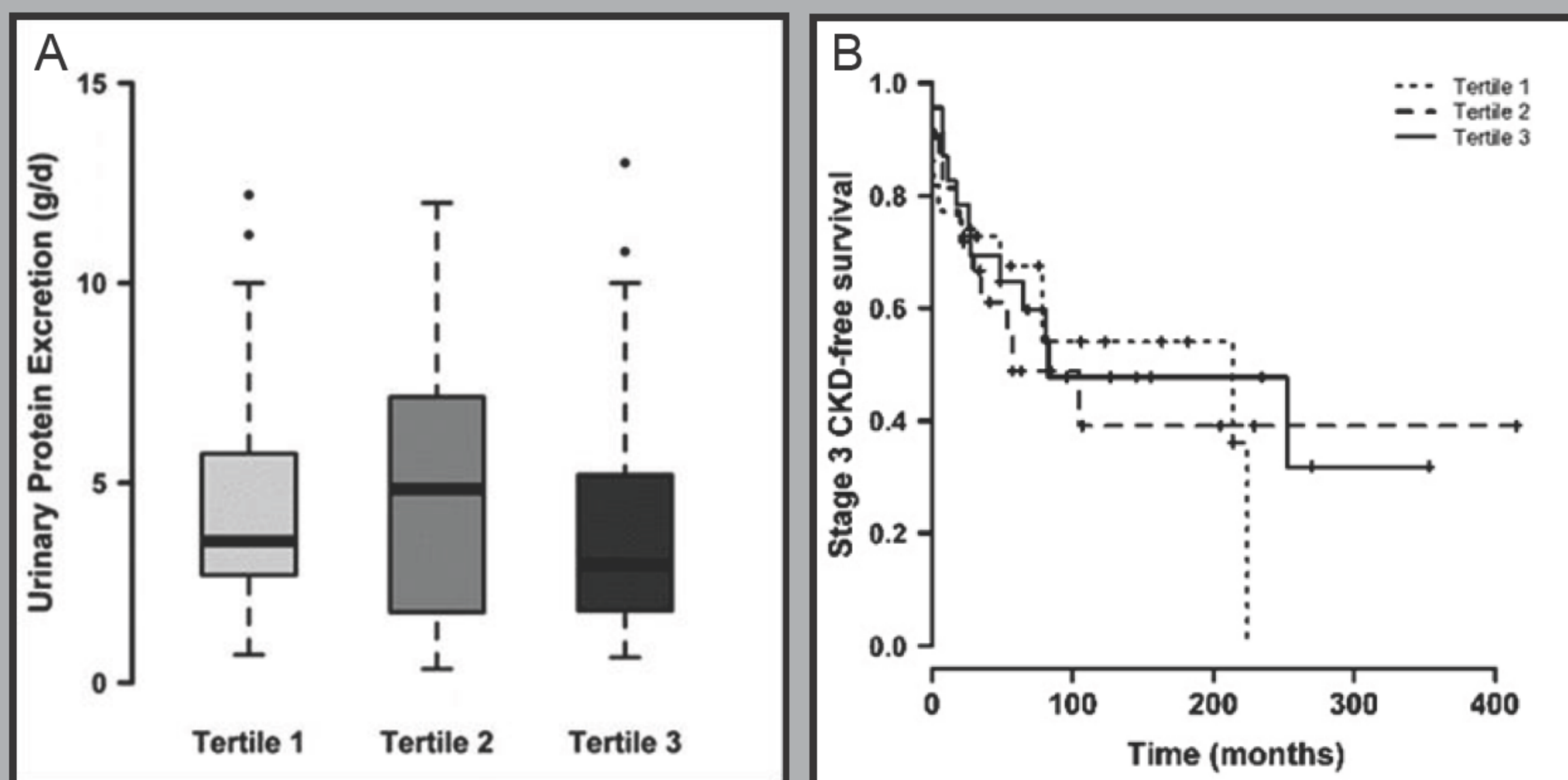
## METHODS

All adult patients with **biopsy-proven iMN** diagnosed between 1978 and 2007 were retrospectively screened in our center.

Level of **anti-PLA2R-Ab** were measured with a validated **ELISA** in serum samples obtained at the time of renal biopsy.

Clinical data on disease activity, treatments, and outcomes were collected by reviewing patients' medical records.

Association between anti-PLA2R-Ab titer and clinical activity/outcomes was assessed by univariate (chi-squared or nonparametric Wilcoxon test), multivariate (logistic regression), and Kaplan Meier (LogRank test) analyses.



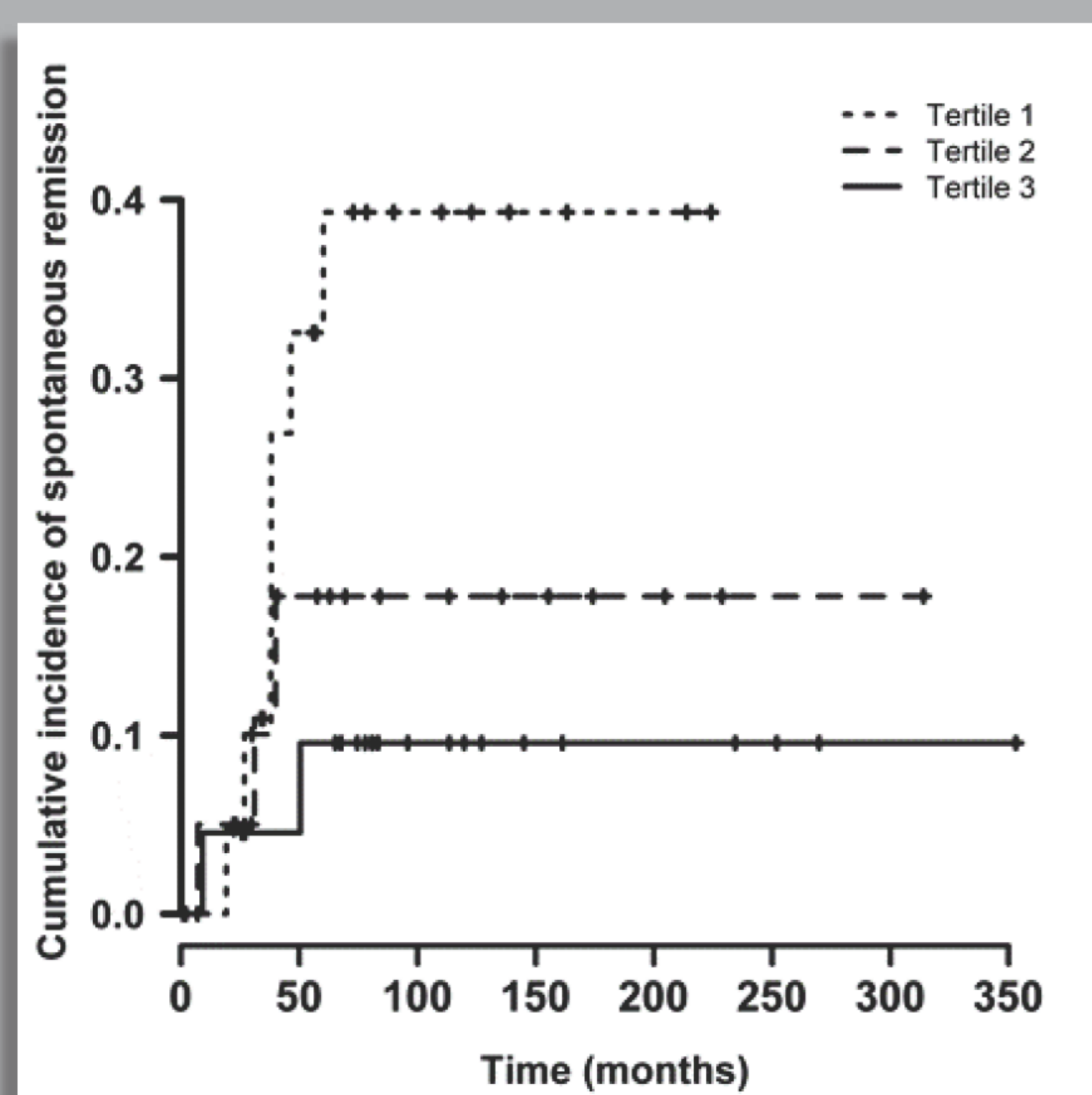
**Figure 1 : Association between AntiPLA2R antibody levels and urinary protein excretion at diagnosis ((A) ANOVA test,  $p=0,64$ ), and development of stage 3 CKD ((B) Log rank,  $p=0,68$ )**

## RESULTS

**Sixty-eight patients** were retained for the final analysis (median follow-up of 81 months). Patients were divided in **three tertiles** according to level of antiPLA2R antibodies.

No significant association was found between anti-PLA2R-Ab titer at diagnosis with baseline proteinuria, baseline eGFR or chronic kidney disease (CKD) progression (figure 1).

**Spontaneous remission** was observed in 18% of patients. **Antibodies' titer was significantly and gradually correlated with the likelihood of spontaneous remission** (figure 2).



Tertile 1 = low titers of antibodies  
Tertile 2 = intermediate titers of antibodies  
Tertile 3 = high titers of antibodies

**Figure 2 : Incidence of spontaneous remission according to the tertile of anti-PLA2R antibody. Log rank test,  $p=0,048$**

## CONCLUSIONS

While their titer measured at diagnosis was not found to predict the activity of iMN, anti-PLA2R antibodies might help to early identify patients susceptible to achieve spontaneous remission.

