Project Summary for IIgANN website

Project Title

Microscopic hematuria in children with IgAN at renal biopsy and during the follow-up. Correlation with IgA and Complement glomerular deposits.

Primary Investigators

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Brief Description

The value of microscopic hematuria at renal biopsy and during the follow-up as a risk factor for IgAN progression has been supported by several studies and recently reviewed (1). Data in adults are mostly reported, while data in children are scanty and no large international multiethnic cohort has been investigated for this biomarker. The IIgANN collected a multiethnic cohort of 1060 children with IgAN for updating the prediction tool in children with IgAN (2), and a cohort of 864 cases with fully completed data at renal biopsy and during the follow-up was recently selected to assess a prediction tool for complete proteinuria remission in children (IIgANN project ongoing). However, data on microscopic hematuria in primary IgAN were not originally requested for these children.

Moreover, there is a growing interest in the involvement of complement activation in inducing renal damage, microscopic hematuria and disease progression (3)The relationship between IgA deposits, complement activation, microscopic hematuria and outcome in children with IgAN is a new and fascinating area of investigation. The relationship with proteinuria remission has never been investigated.

The present study aims at investigating the value of microscopic hematuria and complement deposition as risk factors for activity and progression of IgAN in children. A semi-quantification of IgA, IgG, IgM and C3, C4, C1q and glomerular C4d and quantified microscopic hematuria at renal biopsy and over the follow-up will be requested as additional data from the centers who had already provided the clinical and pathology data for the proteinuria complete remission database.

A request for semiquantitative report of IgG, IgA, IgM, C3, C4, C1q and glomerular C4d deposits on kidney biopsy as well as semiquantitative report of microscopic hematuria at renal biopsy and during the follow-up will be collected from each center that participated in pediatric data collection for the proteinuria remission study in children with IgAN (IIgANN, ongoing)In a pre-work analysis, we identified the original center of 750 children in the data-base and each center will be contacted for new data collection. We are in the process of developing new or revised agreements with each center and organizing the database shipment to Mayo Clinic for statistical analysis.

References

1) Zand L, Fervenza FC, Coppo R.. Clin Kidney J. 2023;16(Suppl 2) :ii19-ii27
2) Barbour SJ et al Kidney Int. 2021;99:1439-1450
3) Caravaca-Fontán F, et al Clin Kidney J. 2023;16(Suppl 2):ii28-ii39.