

## **Project Summary for IgANN website**

### **Project Title**

Histologic and clinical factors associated with kidney outcomes in IgA vasculitis nephritis

### **Primary Investigators**

Sean J. Barbour, University of British Columbia, Division of Nephrology, Vancouver, Canada; BC Renal, Vancouver, Canada

Rosanna Coppo, Fondazione Ricerca Molinette, Regina Margherita Hospital, Turin, Italy

Lee Er, BC Renal, Vancouver, Canada

Evangeline Pillebout, Nephrology Unit, Saint Louis Hospital, Paris, France

Mark Haas, Department of Pathology and Laboratory Medicine, Cedars-Sinai Medical Center, Los Angeles, CA, USA

### **Brief Description**

Nephritis is a common manifestation of IgA vasculitis and is morphologically indistinguishable from IgA nephropathy. While MEST-C scores are predictive of kidney outcomes in IgA nephropathy, their value in IgA vasculitis nephritis has not been investigated in large multiethnic cohorts. We used a cohort of 262 children and 99 adults with IgA vasculitis nephritis (N=361), with biopsies scored by 3 pathologists, to determine clinical and histologic parameters associated with different groups of eGFR trajectory over time. Two groups of eGFR trajectory were identified, one with initial improvement in eGFR followed by a late decline (Class 1, N=91) and another with stable eGFR (Class 2, N=218). Class 1 was associated with a higher risk of time to >30% decline in eGFR or kidney failure (HR 5.84, 95%CI 2.37, 14.4). Among MEST-C scores, only E1 was associated with Class 1 by multivariable analysis. Other factors associated with Class 1 were age <18 years, male sex, lower eGFR at biopsy, and extrarenal non-cutaneous disease. Fibrous crescents without active changes were associated with Class 2. Thus, kidney outcome in patients with biopsied IgA vasculitis nephritis treated with immunosuppression was determined by clinical risk factors, and endocapillary hypercellularity (E1) and fibrous crescents, which are features that are not part of the ISKDC classification.

### **Project status**

Published: Clinical Journal of the American Society of Nephrology, on-line e-pub, DOI: 10.2215/CJN.0000000000000398