

ABSTRACT

Renal outcome in children with acute post-infectious glomerulonephritis

Jitsupa Worakul, Suroj Supavekin, Thanaporn Chaiyapak

Department Of Pediatrics, Faculty Of Medicine, Siriraj Hospital, Mahidol University

Background: Acute post-infectious glomerulonephritis (APIGN) is the most common cause of acute glomerulonephritis in children. Most children have an excellent prognosis and complete recovery. The recent study demonstrated that APIGN is a risk factor for chronic kidney disease.

Objective: To study renal outcome at last follow-up in children with APIGN.

Method: This study retrospectively reviewed APIGN patients younger than 18 years old between 1 January 2010 and 31 December 2016 with at least 1 year follow-up. Plots of the probability of resolution of renal abnormalities using Kaplan-Meier method.

Results: A total of 57 children were recruited with the mean age of 9.6 ± 2.9 years old. At last follow-up (median 2 years, 1-7 years), 67.9% of patients achieved a complete recovery. However, 14.4% of patients had any persistent abnormalities such as proteinuria (5.7%), hypertension (8.7%). None had hematuria. Sixteen (28.1%) patients had glomerular filtration rate (GFR) < 90 ml/min/1.73 m². The cumulative incidence of chronic kidney disease at last follow-up was 3.5%. Twenty eight percent of patients who had initial GFR < 60 ml/min/1.73 m² still had GFR < 90 ml/min/1.73 m² at last follow-up.

Conclusion: This study demonstrates that persistent abnormalities and chronic kidney disease occurs in some children with APIGN. This result supports that long term follow-up in children with APIGN is needed, especially who had initial GFR < 60 ml/min/1.73 m².

Keywords : Acute post-infectious glomerulonephritis, acute glomerulonephritis, Streptococcal infection