ACUTE RHEUMATIC FEVER FOLLOWING ACUTE POST-STREPTOCOCCAL GLOMERULONEPHRITIS SECONDARY TO GROUP G STREPTOCOCCAL INFECTION

S.M. Albatati¹, K.A. Rahim²
¹Pediatrics, ²Nephrology, King Fahad Medical City, Riyadh, Saudi Arabia

**Background:** Group G streptococcus (GGS) have been reported to cause acute post-streptococcal glomerulonephritis (APSGN) or acute rheumatic fever (ARF). Our patient is the first case to be reported for having both ARF and APSGN secondary to GGS.

**Methods and Results:** A 6-year-old girl, presented with facial puffiness for 3 weeks and tea-colored urine and oliguria for 2 days. she received antibiotics 4 weeks earlier for sore throat. No history of skin rash or joints pain. She was afebrile with generalized edema, blood pressure of 137/81mmHg while other examinations were unremarkable. Complete blood count, renal function and C4 level were normal but C3 was low with high Anti-streptolysin O (ASO) titer. Throat culture and Antinuclear antibody were negative. Urinalysis showed hematuria and proteinuria. Electrocardiogram was normal. She was diagnosed as APSGN and treated with Furosemide and Amlodipine. Two weeks later she presented with right knee pain but she was afebrile. Examination revealed grade 3/6 pansystolic murmur, right knee swelling, tenderness with restricted range of movement. Throat culture came positive for GGS. ESR, CRP and ASO titer were high while rheumatoid factor was negative. Echocardiogram revealed severe mitral and aortic regurgitation with pericardial effusion. ARF diagnosis was established with dramatic response upon starting Aspirin. On subsequent 2 weeks follow-up she was symptoms free and maintained on Benzathine penicillin prophylaxis.

**Conclusion:** In our case the association between ARF following APSGN secondary to GGS infection suggests some GGS stains might have both nephritogenic and rheumatogenic features though pathogenesis yet to be understood.