

Case of Acute tubulointerstitial nephritis after COVID-19 vaccination

분당서울대학교 병원 내과¹장소영¹, 진호준¹

Introduction: COVID-19 infection was first reported in China in November 2019 and has spread worldwide. In Korea, mass preventive vaccination was administered against SARS-CoV-2. Many complications have been reported after that. Acute tubulointerstitial nephritis (ATIN) is a condition in which inflammation of the tubulointerstitial tissue has occurred due to various causes such as infection, autoimmune disease, drugs and toxin. So far, there have been no reports of ATIN associated with COVID-19 vaccination in Korea.

Case report: Here are case of patients who was diagnosed with ATIN after COVID-19 vaccination. This is a case of 75-year-old female, with a history of hypertension, etc. She had no history of kidney disease or risk factors related to kidney disease in the past. She visited to the nephrology department on August 2021 due to proteinuria, hematuria and elevated Creatinine (Cr). Initial urinalysis identified proteinuria(2+), no hematuria (RBC 1-4/HPF), eosinophiluria (2%) and Cr 6.29 (mg/dL). She had received the COVID-19 vaccine June 3rd 2021. On physical examination, there were no pitting edema. On history taking, there was no history of drugs that could damage renal function. Kidney biopsy was performed on August 2021. Kidney biopsy resulted tubules atrophy with edematous component and tubular cell injury with tubulitis (LM). The patient was diagnosed with ATIN was started high dose steroid therapy. After that, the dose was gradually tapered off. Follow up continued, Cr and UPCR increased. For the reason, steroid pulse therapy 3days was started. Currently, prednisolone 5mg qd and mycophenolate mofetil 500mg 1T bid are maintained.

Discussion: After the COVID-19 vaccination, there have been case reports of glomerulopathy. While we cannot be sure that there is a causation between vaccination and ATIN, However, the fact that the ATIN occurred within 3months of vaccination without any other cause dose suggest that there is a correlation. The COVID-19 vaccination will continue as long as the coronavirus does not disappear. And the number of immunological complications are expected to increase. Therefore, continuous research on causality is needed.

