

AKI after taking the extract of *Cudrania tricuspidata* in patient taking long-term NSAIDs

대전을지대학교병원 내과¹, 대전을지대학교병원 신장내과², 대전을지대학교병원 병리과³

황석진¹, 이수아², 신종호², 김경민², 이소영², 김주현³

Background: Acute tubulo-interstitial nephritis(ATIN) is an acute kidney disease characterized by infiltration of inflammatory cells localized in the renal tubules and interstitium. ATIN is well known to be developed by hypersensitivity reaction to drugs or infections. We reported an unusual case of ATIN after taking the extract of *Cudrania tricuspidata*(*C. tricuspidata*) with taking long-term nonsteroidal anti-inflammatory drugs(NSAIDs).

Case presentation: A 69-year-old male patient visited the emergency room with complaints of general edema that occurred 2 weeks ago and oliguria that occurred 2 days ago. He was diagnosed hypertension 3 years ago. He had been taking Naproxen 500mg intermittently for knee pain for 6 months and *C. tricuspidata* leaf tea every day for 3 months. He had abdominal distension and severe pitting edema of lower extremities. Initial laboratory findings were as follows: white blood cells, 10,320/mm³ (neutrophils 58.9%, lymphocytes 15.2%, monocytes 7.0%, eosinophils 13.1%); blood urea nitrogen, 53 mg/dL; creatinine(Cr), 9.9 mg/dL; estimated glomerular filtration rate(eGFR), 5.3 ml/1.73m²/min; albumin, 3.3g/dL; total immunoglobulin E > 5000 IU/ml; urine protein-creatinine, 14.3 g/mg. Both kidney size and morphology were normal in computed tomography. He underwent emergent hemodialysis and kidney biopsy to evaluate the cause of acute kidney injury. Light microscopy revealed that numerous lymphoplasmacytic with some eosinophils were infiltrated in the tubulointerstitium, consistent with ATIN. Electron microscopy revealed diffused effacement of foot process and interstitial edema, consistent with minimal change disease(MCD). Steroids were administered intravenously for ATIN and MCD. He was discharged after 4 weeks with Cr 1.5 mg/dL and eGFR 47.1 ml/1.73m²/min.

Discussion: Each case of acute liver failure and acute generalized exanthematous pustulosis after taking the extract of *C. tricuspidata* was previously reported. Physicians should be concerned that *C. tricuspidata* can cause ATIN as a hypersensitivity reaction.

