

## 신결석으로 발현한 소아의 자발성 종양용해증후군 1례

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### Spontaneous Tumor Lysis Syndrome Presenting with Renal stone in Children

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**Introduction:** Spontaneous tumor lysis syndrome (STLS) before cancer treatment is rare and develop mostly in Burkitt lymphoma and non-Hodgkin lymphoma. Here we report a case of STLS secondary to T- cell acute lymphoblastic leukemia (ALL) which presented with renal stone and subsequent AKI.

**Case:** A 6-year-old boy was admitted to our hospital for generalized tonic clonic seizure. One month ago, He visited other hospital for episodic right-sided flank pain and evaluations revealed microscopic hematuria, hyperuricemia and stone on right uretero-pelvic junction. His blood pressure was 160/90 mmHg and he did not have any dysmorphic features and he had developed normally. Physical examination showed tender hepatomegaly (2 cm below costal margin) and no splenomegaly.

His initial laboratory findings were as follows : BUN 119.3 mg/dL, creatinine 4.77 mg/dL, uric acid 47.6 mg/dL, LDH 460 IU/L, WBC 11,900 /uL, Hb 9.9 g/d L, platelet 242K /u L. There was no blast on his peripheral blood smear test. Emergent hemodialysis was started because of AKI, hypertension and seizure. His renal function, blood pressure, uric acid and electrolyte abnormalities gradually improved with appropriate therapy after 2 times of hemodialysis. But serum uric acid level increased again (from 6.1 mg/dL to 12.9 mg/dL), so allopurinol was added on. The cause of AKI was unclear and we thought that AKI presumed to be secondary to acute uric acid nephropathy caused by STLS. After few days, bone marrow biopsy was done and demonstrated normocellular marrow without evidence of malignancy. After day 15 of hospitalization, abdominal pain with hepatomegaly was getting worse than before and uncontrolled high fever occurred. 20% of blasts were seen on his peripheral blood smear and subsequent second bone marrow biopsy demonstrated acute T cell lymphoblastic leukemia. Then, he was referred to division of pediatric hemato-oncology on our hospital and induction chemotherapy was started.

**Conclusion:** STLS with AKI is very uncommon initial presentation of leukemia and STLS presenting with renal stone is extremely rare. In a clinical situation of marked hyperuricemia with acute kidney injury, we need to consider occult malignancy and STLS.

**Key Words:** 신결석, 급성 백혈병, 자발성 종양 용해 증후군

Renal stone, Acute leukemia, Spontaneous tumor lysis syndrome