

## 횡문근 용해증에 의해 유발된 급성신부전 및 구획증후군 1예

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### Rhabdomyolysis Induced AKI and Compartment Syndrome

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**Background:** Rhabdomyolysis is a syndrome characterized by muscle necrosis and the release of intracellular muscle constituents into the circulation. Myoglobinuria is the most significant consequence of the muscle breakdown and is reported to cause acute renal failure. Fluid resuscitation is known as the mainstay of treatment of renal failure. However, compartment syndrome is a potential complication of severe rhabdomyolysis that may develop after fluid resuscitation, with worsening edema of the limb and muscle. Bilateral sciatic nerve compression neuropathy caused by gluteal compartment syndrome is rare. This case report describes a rare presentation of both feet drop resulting from compartment syndrome subsequent to rhabdomyolysis.

**Case:** A 30-year old female was presented to the emergency room with low extremity weakness for 30 minutes. There was swelling and tenderness on both thigh. Neurological examination demonstrated paraesthesia of the skin on the posterior aspect of the thigh and gluteal regions, as well as the entire lower leg. Power of both knee extension was grade 3 and ankle dorsiflexion was grade 0. Serum electrolytes revealed hyperkalemia ( $K=5.7$  mmol/L). Other pertinent laboratory studies included serum creatine phosphokinase (101960 iu/l), lactate dehydrogenase (5794 iu/l), aspartate aminotransferase (1130 iu/l), and alanine aminotransferase (517 iu/l). Her renal function was impaired (urea 33 mg/dL; creatinine 1.7 mg/dL). Urinalysis demonstrated myoglobin, a large amount of red blood cells. EMG findings suggest degeneration of sensorimotor fibers of the bilateral sciatic nerve and myopathy in the bilateral hip girdle muscles. MRI scan of the buttock and thigh muscles showed signal change in both piriformis muscle and sciatic nerve compression are probably due to piriformis muscle swelling.

**Conclusion:** Rhabdomyolysis induced compartment syndrome is rare and can be easily missed due to muscle weakness and pain as a result of rhabdomyolysis. It is imperative to identify the condition as early in the process as possible and to treat it with the appropriate interventions. Failure to do so may result in dangerous, irreversible sequelae such as contracture, sensory deficits, & paralysis.

**Key Words:** 횡문근 용해증, 급성신부전, 구획증후군  
Rhabdomyolysis, AKI, Compartment Syndrome