

# Carbamazepine 중독된 17세 남자 환자에서 albumin enhanced continuous renal replacement therapy 및 charcoal hemoperfusion을 이용한 치료의 예

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## Albumin Enhanced Continuous Renal Replacement Therapy and Charcoal Hemoperfusion to Treat Carbamazepine Overdose in 17 Year Old Patient

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A 17-year-old boy was brought to the emergency department, suspected of polypharmacy overdose. He was hemodynamically stable with Glasgow Coma Scale score of 8 in the emergency department. In spite of supportive treatment, he was unconscious and not responsive to the noxious stimuli. After 48 hrs, his mother found that 18 g of carbamazepine controlled-release disappeared at home. For this reason, primary detoxification was not performed with a gastric lavage and charcoal instillation. His serum carbamazepine level was 36 mcg/mL at the time of 48hrs after ingestion. He was managed by albumin-enhanced CVVHD, but there was no improvement in his neurological status and carbamazepine level in the next 48 hours. Serum carbamazepine level was repeated and reported to be 27.3 mcg/mL. Since there was no improvement in his sensorium and the serum carbamazepine level remained persistently high, charcoal hemoperfusion was attempted. After 3 hours of charcoal hemoperfusion treatment, his sensorium improved markedly and the carbamazepine level at this time was within the therapeutic range. However, his hemodynamic instability, charcoal hemoperfusion treatment changed albumin-enhanced CVVHD and albumin-free CVVHD. He was discharged after psychiatry consultation and counseling without long-term sequelae. We review the literature regarding extra corporeal techniques for the removal of carbamazepine and discuss them in this case report.

**Key Words:** 카바마제핀, 지속성 신대체요법, 혈액관류  
Carbamazepine, CVVHD, hemoperfusion