Hemoperfusion with activated charcoal in valproic acid poisoning. A case report.

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Voluntary intoxication with valproic acid (VA) as attempted suicide, is a relatively common clinical problem. Valproic acid is a broad-spectrum drug, used to treat epilepsy, such as mood stabilizer and prophylaxis of migraine. Poisoning by this drug can cause severe clinical and analytical alterations, such as hypotension, metabolic acidosis with increased anion gap, increased lactic acid and electrolyte abnormalities such as hypernatremia, hypocalcemia, hypokalemia and hyperammonemia. In severe cases it can lead to coma and even death. Treatment depends on the severity of poisoning. There is not a specific antidote. There are several extracorporeal treatment techniques, but none has prevailed as the standard therapy, since the techniques that have been used to enhance drug elimination, the indications and the efficacy of these methods have not been fully determined. Extracorporeal purification methods should be considered, based on plasma drug levels (> 300mg / dl) and the neurological condition of the patient. We describe the case of a patient with severe valproic acid poisoning, requiring admission to intensive care unit; reaching peak levels up to 595mg / dl and treated successfully with charcoal hemoperfusion as extracorporeal purification technique, in a single session for 4 hours. The data currently available regarding extracorporeal techniques on the elimination of VA are limited, and there are some publications, mostly isolated cases which describe the use of hemodialysis and / or hemoperfusion. In our case, early charcoal hemoperfusion was effective in
rapidly lowering levels of VA. In conclusion, we believe that this treatment technique should be assessed in cases of acute poisoning with VA, in which the use of extracorporeal techniques are indicated.

**Keywords:** activated charcoal, hemoperfusion, valproic acid, intoxication.