

Intracranial pressure fluctuation during hemodialysis in renal failure patients with intracranial hemorrhage

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摘要

Abstract

Coagulopathy in renal failure patients often makes them vulnerable to intracranial hemorrhage. Emergency decompression to remove the hematoma and to stop bleeding is always indicated. After the surgery, hemodialysis (HD) should be arranged to maintain the BUN/Cr. level, and I/O balance. During HD, intracranial pressure in all of the patients in this study fluctuated. This phenomenon always resulted in neurological deterioration in acute or chronic renal failure.

We present intracranial pressure (ICP) changes during HD in five acute or chronic renal failure patients with intracranial hemorrhage. They all underwent craniectomy or craniotomy with ICP monitors implantation. Different HD protocols were arranged for these patients and then we observed clinical results.

ICP elevated during HD and resulted in severe brain swelling. This situation was one of the clinical presentations of dialysis disequilibrium syndrome (DDS). Four patients died because of this complication and one survived. ICP fluctuation seemed to be correlated with the fluid amount and frequency of HD.

The prevalence and pathophysiology of DDS remain unclear. Renal failure patient with intracranial hemorrhage may be complicated with DDS when HD was performed. An attempt to reduce the fluid amount and to increase the frequency of HD might help these patients.