Hemodialysis

Current hemodialysis treatment, enlargement of an existing hematoma, and an acute subdural hematoma are predictive factors of seizure occurrence in THI patients. As post-traumatic seizures triggered unfavorable outcomes in some dialysis patients, it is important to create appropriate plans for preventing dialysis disequilibrium syndrome that may lead to seizures in TICH/TIH patients on hemodialysis. We also determined that a low GCS score upon admission is a significant predictor of unfavorable outcomes [1].

Higher serum phosphate levels were associated with an increased risk of brain hemorrhage, whereas low levels were associated with an increased risk of cerebral infarction in hemodialysis patients. These results suggest the importance of managing serum phosphate levels within an appropriate range in hemodialysis patients [2].

Lumbar destructive spondyloarthropathy (DSA) is a serious complication in long-term hemodialysis patients. There have not been many reports regarding the surgical management for lumbar DSA. In addition, the adjacent segment pathology after lumbar fusion surgery for DSA is unclear. The objective of this study was to assess the clinical outcome and occurrence of adjacent segmental disease (ASD) after lumbar instrumented fusion surgery for DSA in long-term hemodialysis patients.

A consecutive series of 36 long-term hemodialysis patients who underwent lumbar instrumented fusion surgery for DSA were included in this study. The mean age at surgery was 65 years. The mean follow-up period was 4 years. Symptomatic ASD was defined as symptomatic spinal stenosis or back pain with radiographic ASD. The Japanese Orthopedic Association score (JOA score), recovery rate (Hirabayashi method), complications, and reoperation were reviewed.

The mean JOA score significantly increased from 13.5 before surgery to 21.3 at the final follow-up. The mean recovery rate was 51.4%. Six of the 36 patients died within 1 year after index surgery. One patient died due to perioperative complication. Symptomatic ASD occurred in 43% (13 of 30) of the cases. Of these 13 cases, 5 had adjacent segment disc degeneration and 8 had adjacent segment spinal stenosis. Three cases (10%) required reoperation due to proximal ASD. Multi-level fusion surgery increased the risk of ASD compared with single-level fusion surgery (59% vs. 23%). The recovery rate was significantly lower in the ASD group than the non-ASD group (38% vs. 61%).

This study demonstrated that symptomatic ASD occurred in 43% of patients after surgery for lumbar DSA. A high mortality rate and complication rate were observed in long-term hemodialysis patients. Therefore, care should be taken for preoperative planning for surgical management of DSA [3].

1)
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