

# **Effectiveness of fibrin glue for preventing postoperative extradural fluid leakage.**

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## **Abstract:**

Cerebrospinal fluid (CSF) leakage through dural sutures after craniotomy increases the risk of complications such as persistent CSF fistulas, meningitis, and subcutaneous, graft bone, or epidural infections. The effectiveness of fibrin glue for preventing CSF leakage through dural closure was investigated in 183 patients who underwent frontotemporal craniotomy for unruptured aneurysm. Fibrin glue was used in 138 patients, but not in the other 45. Computed tomography was used to evaluate postoperative extradural fluid collection as a minimal volume of low-density area. Postoperative computed tomography demonstrated transient increases in extradural fluid collection in 55 patients. However, none of these patients received a second surgery for dural repair. Fluid collection occurred in 19 of 45 patients (42%) in whom fibrin glue was not used, and in 36 of 138 patients (26%) in whom fibrin glue was used. The fibrin sealant on the dural suture was a significant factor in reducing the incidence of the fluid leakage ( $p < 0.05$ , chi-square test). Fibrin glue is a useful surgical tool for the prevention of postoperative extradural fluid collection through the dural sutures.