

Ventricular catheter migration

The disconnection of the [ventricular catheter](#) from the [shunt valve](#) and its migration toward the cranium can be explained due surgical inattention and the negative [intracranial pressure](#) suction effect ^{1) 2)}.

Tubing migration accounts for a significant number of shunt complications. In an attempt to reduce the likelihood of disconnection and tubing migration, Leuthardt et al., developed a technique to rigidly fix the proximal catheter to the skull. The method involves the placement of a small twist drill hole adjacent to the catheter burr hole through which a suture is passed. The suture is then used to rigidly bind the proximal shunt tubing and valve to the skull. This approach provides an efficient and effective means for reducing complications related to shunt tubing migration ³⁾.

In case of surgical intervention for a free-floating [ventricular catheter](#), the anatomic localization of the ventricular catheter should be determined on the operating table through the CT or C-Scopy ⁴⁾.

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Shaokoon C, Kristy T, Lynne EB: The effects of the interthalamic adhesion position on cerebrospinal fluid dynamics in the cerebral ventricles. Journal of Biomechanics 43:579-582, 2010

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Goeser CD, McLeary SM, Young WL: Diagnostic imaging of ventriculoperitoneal shunt malfunctions and complications. Radiographics, Scientific Exhibit 18: 635-651, 1998

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