Long-tunneled external ventricular drainage

External ventricular drainage(EVD) is a basic operation in neurosurgery. Due to the limitation of its safe duration, some patients need to receive multiple drainage operations. We describe the long tunneled external ventricular drains(LTEVD) with shunt valves that effectively avoid multiple operations as a technical note.

Methods: The difference is that the middle part of the drainage tube is connected by an externalized shunt valve. The drainage tube is buried under the skin and the outlet is in the abdomen. The technique and more details are described.

Results: The connection between the LTEVD and the shunt valve is simple and the required materials are easily accessible. Externalized valves allow the CSF to be visualized and more controllable, making it easier for physicians to manage the CSF. No drainage tube failure or secondary infection was observed. The indwelling time of the drainage tube was greatly extended.

Conclusions: LTEVD is effective and simple. It allows visual control of drainage flow, prolonging catheter indwelling time and eliminating the need for multiple surgeries [1].

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He G, Lin J, Ye J, Huang F, Yan C, Liu Z, Zhou X, Li Q, Zhang L. Long tunneled external ventricular drains with shunt valves: Technical Note. World Neurosurg. 2022 Oct 8:S1878-8750(22)01416-4. doi: 10.1016/j.wneu.2022.10.010. Epub ahead of print. PMID: 36220491.