Hydrocephalus after aneurysmal subarachnoid hemorrhage treatment

- Post-traumatic hydrocephalus after decompressive craniectomy: a multidimensional analysis of clinical, radiological, and surgical risk factors
- Subarachnoid hemorrhage, part 2 : Treatment, complications and long-term sequelae
- Impact of acute hydrocephalus after aneurysmal SAH on longitudinal cognitive outcome- post-hoc analysis of the MoCA-DCI study
- Lumbar Puncture or External Ventricular Drainage as Initial Treatment for Acute Hydrocephalus in Aneurysmal Subarachnoid Hemorrhage-A 2-Center Cohort Study
- Rapid Absorption of a Spontaneous Primary Intraventricular Hemorrhage
- Serum uric acid is associated with shunt dependent hydrocephalus of aneurysmal subarachnoid hemorrhage patients
- Flow Diverter Assisted Embolization of Ruptured Aneurysms is Associated with Increased Hemorrhagic Complications: Prognostic Factors and Outcomes in Neuroendovascular Treatment of Subarachnoid Hemorrhages
- Risk factors for surgery-related cerebral infarction after aneurysmal subarachnoid hemorrhage

Potential medicines for Hydrocephalus after aneurysmal subarachnoid hemorrhage are still in preclinical status, and surgery is the most prevalent and efficient therapy, despite respective risks of different surgical methods, including lamina terminalis fenestration, ventricle-peritoneal shunting, and lumbar-peritoneal shunting. HCP remains an ailment that cannot be ignored and even with various solutions the medical community is still trying to understand and settle why and how it develops and accordingly improve the prognosis of these patients with HCP [1)]

Management Strategies

1. Acute Management - **External Ventricular Drainage (EVD)**:

1. Indicated in **symptomatic hydrocephalus**.
2. Allows CSF diversion and intracranial pressure (ICP) monitoring.
3. Risk: **Infections (ventriculitis), overdrainage leading to subdural hematomas**.

- **Serial Lumbar Punctures or Lumbar Drainage**:

1. Used if **communicating hydrocephalus** is suspected.
2. Helps determine if a **shunt will be needed**.

2. Long-Term Management - **Ventriculoperitoneal (VP) or Ventriculoatrial (VA) Shunting**:

1. Indicated in **chronic or persistent hydrocephalus**.
2. Programmable valves reduce complications related to **overdrainage (e.g., subdural hematomas)**.

- **Endoscopic Third Ventriculostomy (ETV)**:

1. Considered in **non-communicating hydrocephalus**.
2. Less commonly used in post-aSAH hydrocephalus due to arachnoid granulation dysfunction.

External ventricular drain for hydrocephalus after aneurysmal subarachnoid hemorrhage

External ventricular drain for hydrocephalus after aneurysmal subarachnoid hemorrhage.

Ventriculoperitoneal shunt for hydrocephalus after aneurysmal subarachnoid hemorrhage

Ventriculoperitoneal shunt for hydrocephalus after aneurysmal subarachnoid hemorrhage.

Endoscopic third ventriculostomy for hydrocephalus after aneurysmal subarachnoid hemorrhage

Endoscopic third ventriculostomy for hydrocephalus after aneurysmal subarachnoid hemorrhage

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Chen S, Luo J, Reis C, Manaenko A, Zhang J. Hydrocephalus after Subarachnoid Hemorrhage: Pathophysiology, Diagnosis, and Treatment. Biomed Res Int. 2017;2017:8584753. doi: 10.1155/2017/8584753. Epub 2017 Mar 8. PMID: 28373987; PMCID: PMC5360938.