Cerebral Cavernous Malformation Associated Developmental Venous Anomaly

Latest

- Detection of cerebral cavernous malformation associated developmental venous anomalies in gradient-echo and susceptibility-weighted magnetic resonance imaging: can we skip the contrast?
- Optimizing gamma knife radiosurgery for cerebral cavernous malformation: Analysis of 54 patients treated at our university center
- Use of Anticoagulation for Secondary Stroke Prevention in Cerebral Cavernous Malformations: A Case Report
- Clinical, genomic, and histopathologic diversity in cerebral cavernous malformations
- Cavernous Venous Malformation(Archived)
- Development and Validation of a Supplementary Grading Scale for Outcomes of Brainstem Cavernous Malformations
- Developmental Venous Anomalies
- Management of Symptomatic Hemorrhage From a Developmental Venous Anomaly

A **cerebral cavernous malformation (CCM)** associated with a **developmental venous anomaly (DVA)** refers to the coexistence of two distinct cerebral vascular malformations.

Cerebral Cavernous Malformation (CCM)

- Cluster of abnormally dilated, thin-walled capillaries.
- Lacks intervening normal brain parenchyma.
- Low-flow lesion with risk of microhemorrhages or overt bleeding.
- Clinical presentations:
  - Seizures
  - Focal neurological deficits
  - Incidental finding on MRI

Developmental Venous Anomaly (DVA)

- Most common type of cerebral vascular malformation.
- Characterized by radially arranged medullary veins draining into a central trunk.
- Typically benign and asymptomatic.
- Found incidentally in most cases.

Association Between CCM and DVA

- Up to **20–30%** of CCMs are associated with a DVA.
- Hemodynamic stress from the DVA may contribute to CCM formation or hemorrhage.

- **Surgical relevance:** DVAs drain normal brain tissue → **must not be resected** during cavernoma surgery.

Diagnosis

Cerebral Cavernous Malformation Associated Developmental Venous Anomaly Diagnosis

Clinical Note

> Surgical planning must **preserve the DVA** to prevent venous infarction. Only the cavernoma should be targeted for resection if symptomatic.