

# Cerebral cavernous malformation treatment

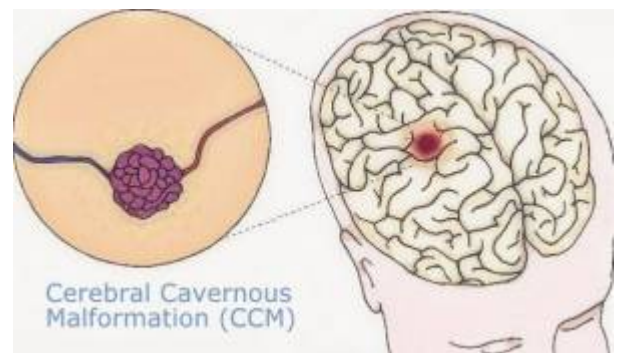
## Sirolimus for Cerebral cavernous malformation treatment

[Sirolimus for Cerebral cavernous malformation treatment.](#)

## Surgery

see [Intracranial cavernous malformation surgery.](#)

There have been few [comparative studies](#) of microsurgical [excision](#) vs [conservative treatment](#) of cerebral [cavernous malformations](#) (CCM) and none of them has reliably demonstrated a statistically and clinically significant difference.



A prospective, population-based study to identify and independently validate definite [cerebral cavernous malformation](#) diagnoses first made in 1999-2003 in Scottish adult residents, used multiple sources of prospective follow-up to assess adults' dependence and to identify and independently validate [outcome](#) events.

Moultrie et al., used univariate and multivariable survival analyses to test the influence of CCM excision on outcome, adjusted for prognostic factors and baseline imbalances.

Of 134 adults, 25 underwent CCM excision; these adults were younger (34 vs 43 years at diagnosis,  $p = 0.004$ ) and more likely to present with symptomatic [intracranial hemorrhage](#) or [focal neurological deficit](#) than adults managed conservatively (48% vs 26%; odds ratio 2.7, 95% confidence interval [CI] 1.1-6.5). During 5 years of follow-up, CCM excision was associated with a deterioration to an [Oxford Handicap Scale](#) score 2-6 sustained over at least 2 successive years (adjusted hazard ratio [HR] 2.2, 95% CI 1.1-4.3) and the occurrence of symptomatic intracranial hemorrhage or new focal neurologic deficit (adjusted HR 3.6, 95% CI 1.3-10.0).

CCM excision was associated with worse outcomes over 5 years compared to conservative management. Long-term follow-up will determine whether this difference is sustained over patients' lifetimes. Meanwhile, a randomized controlled trial appears justified.

CLASSIFICATION OF EVIDENCE: This study provides Class III evidence that CCM excision worsens short-term disability scores and increases the risk of symptomatic intracranial hemorrhage and new focal neurologic deficits <sup>1)</sup>.

Antithrombotic therapy use is associated with a lower risk of [intracranial haemorrhage](#) or [focal neurological deficit](#) from cerebral cavernous malformations than avoidance of antithrombotic therapy. These findings provide reassurance about safety for clinical practice and require further investigation in a randomised controlled trial <sup>2)</sup>.

## References

1)

Moultrie F, Horne MA, Josephson CB, Hall JM, Counsell CE, Bhattacharya JJ, Papanastassiou V, Sellar RJ, Warlow CP, Murray GD, Al-Shahi Salman R; Scottish Audit of Intracranial Vascular Malformations (SAIVMs) steering committee and collaborators. Outcome after surgical or conservative management of cerebral cavernous malformations. *Neurology*. 2014 Aug 12;83(7):582-9. doi: 10.1212/WNL.0000000000000684. Epub 2014 Jul 3. PubMed PMID: 24994841.

2)

Zuurbier SM, Hickman CR, Tolias CS, Rinkel LA, Leyrer R, Flemming KD, Bervini D, Lanzino G, Wityk RJ, Schneble HM, Sure U, Al-Shahi Salman R; Scottish Audit of Intracranial Vascular Malformations Steering Committee. Long-term antithrombotic therapy and risk of intracranial haemorrhage from cerebral cavernous malformations: a population-based cohort study, systematic review, and meta-analysis. *Lancet Neurol*. 2019 Aug 6. pii: S1474-4422(19)30231-5. doi: 10.1016/S1474-4422(19)30231-5. [Epub ahead of print] PubMed PMID: 31401075.

From:  
<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:  
[https://neurosurgerywiki.com/wiki/doku.php?id=cerebral\\_cavernous\\_malformation\\_treatment](https://neurosurgerywiki.com/wiki/doku.php?id=cerebral_cavernous_malformation_treatment)

Last update: **2024/06/07 02:51**

