

Verapamil

Verapamil a [calcium channel blocker](#) has shown promising results on [cerebral vasospasm](#). However, it has not yet been accepted for the treatment or prevention purposes because of the associated side-effects.

Verapamil, sold under various trade names, is a medication used for the treatment of high blood pressure, chest pain from not enough blood flow to the heart, and supraventricular tachycardia.

It may also be used for the prevention of [migraines](#) and cluster headaches.

It is given by mouth or by injection into a vein.

Common side effects include headache, low blood pressure, nausea, and constipation.

Other side effects include allergic reactions and muscle pains.

It is not recommended in people with a slow heart rate or heart failure.

It is believed to cause problems for the baby if used during pregnancy.

It is in the non-dihydropyridine calcium channel blocker family of medications.

Al-Mufti et al. from the [Rutgers New Jersey Medical School](#), describe a case of medically refractory [Reversible cerebral vasoconstriction syndrome](#) (RCVS) that required treatment with intra-arterial (IA) [verapamil](#) and subsequent [nimodipine](#), resulting in both angiographic and clinical improvement after failing to respond to [hemodynamic](#) augmentation.

They also supplement a description of the case with a [review](#) of other case studies and case series in which IA [calcium channel blockers](#) were used to treat RCVS. They propose that the case they outline demonstrates that neurointerventional management with IA verapamil is appropriate and effective as an early intervention of medically refractory RCVS.

Using [PubMed](#) and [Google Scholar](#), they performed a search of the English language [literature](#) with several combinations of the keywords “intra-arterial”, “calcium channel blockers”, “reversible cerebral vasoconstriction syndrome”, “RCVS”, “nimodipine”, “verapamil”, “milrinone”, and “nicardipine” to identify studies in which RCVS was treated with IA calcium channel blockers.

They identified eight case studies and case series that met our inclusion criteria. Eighteen patients are encompassed in these eight studies.

IA administration of [calcium channel blockers](#) has been shown to return cerebral vessels to their normal caliber in patients with medically refractory RCVS. However, there are no [randomized controlled trials](#) of the treatment of RCVS, and further studies are needed to elucidate the optimal treatment protocol for medically refractory RCVS ¹⁾.

1)

Al-Mufti F, Dodson V, Wajswol E, El-Ghanem M, Alchaki A, Nuoman R, Thabet A, Sutherland A, Roychowdhury S, Hidalgo A, Gupta G. Chemical angioplasty for medically refractory reversible

cerebral vasoconstriction syndrome(). Br J Neurosurg. 2018 Sep 12:1-5. doi: 10.1080/02688697.2018.1479512. [Epub ahead of print] PubMed PMID: 30207193.

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