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**Review**

# Role of vinpocetine in cerebrovascular diseases

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**Abstract:**

A cerebrovascular accident, or stroke, is defined as the abrupt onset of a neurological deficit, which can be due to ischemia. Cerebral ischemia is caused by a reduction in blood flow that thereby decreases cerebral metabolism. Chronic cerebral hypoperfusion leads to irreversible brain damage and plays an important role in the development of certain types of dementia. Vinpocetine, chemically known as ethyl apovincamate, is a vinca alkaloid that exhibits cerebral blood-flow enhancing and neuroprotective effects. Non-clinical and clinical studies have suggested multiple mechanisms responsible for the beneficial neuroprotective effects of vinpocetine. As no significant side effects related to vinpocetine treatment have been reported, it is considered to be safe for long-term use. This vasoactive alkaloid is widely marketed as a supplement for vasodilation and as a nootropic for the improvement of memory. The present review focuses on studies investigating the role of vinpocetine in cerebrovascular diseases.

**Key words:**

vinpocetine, cerebrovascular, neuroprotection, ischemia, nootropic, positron emission tomography

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