



Propranolol Treatment of Cavernous Malformations with Symptomatic Hemorrhage

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Introduction

Cerebral cavernous malformations affect approximately 1 in every 250 adults. Most of these lesions are asymptomatic or have a relatively benign natural histories, but a small minority behave aggressively and present with recurrent episodes of hemorrhage. A safe and effective medical treatment option for the management of this group would be useful. Propranolol has recently been shown to be effective in the treatment of infantile hemangioma, a close pathologic counterpart of cavernous malformations. These results suggest a potential role for propranolol in the management of patients with cavernous malformations.

Methods

Low-dose propranolol (20 mg, three times daily) was used to treat two adult patients who had symptomatic cavernous malformations and a history of repeated hemorrhage.

Results

Two patients, a 54-year-old woman and a 57-year-old woman, were treated with low dose propranolol. Serial magnetic resonance imaging studies after the initiation of propranolol demonstrated regression of the lesions and no evidence of recurrent hemorrhage.

Conclusions

Propranolol may offer a safe and effective treatment for patients who have cavernous malformations with symptomatic hemorrhage. We propose that a blinded, controlled, randomized trial is necessary to investigate the utility of this approach.

Learning Objectives

To discuss a novel potential medical treatment for symptomatic cerebral cavernous malformations.

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