

Magnetic Resonance Black-blood Thrombus Imaging (MRBTI)

Findings support that with effectively suppressed blood signal, MRBTI allows selective visualization of [thrombus](#) as opposed to indirect detection of venous flow perturbation and can be used as a promising first-line diagnostic imaging tool ¹⁾.

The objective of a study was to evaluate cerebral venous [recanalization](#) with [magnetic resonance black-blood thrombus imaging](#) (MRBTI) in patients with [cerebral venous thrombosis](#) (CVT) who underwent [batroxobin](#) treatment in combination with [anticoagulation](#).

A total of 31 CVT patients were enrolled in a real-world registry study. The patients were divided into batroxobin (n = 21) and control groups (n = 10). In addition to the same standard [anticoagulation](#) as in the control group, patients in the batroxobin group underwent intravenous batroxobin for a total of three times.

In the batroxobin group compared with the control group, they found better [odds](#) of [recanalization](#) degree [adjusted OR (95%CI) of 8.10 (1.61-40.7)] and segment-stenosis attenuation [adjusted OR (95%CI) of 4.48 (1.69-11.9)] with batroxobin treatment. They further noted a higher ratio of patients with the attenuation of [stenosis](#) [adjusted OR (95%CI) of 26.4 (1.10-635)]; as well as a higher ratio of segments with stenosis reversion [adjusted OR (95%CI) of 4.52 (1.48-13.8)]. However, [neurological deficits](#) between the two groups showed no [statistical significance](#) at 90-day follow-up (P > 0.05).

Batroxobin may promote venous sinus recanalization and attenuate CVT-induced stenosis. Further [randomized](#) study of this promising drug may be warranted to better delineate the amount of benefit. ²⁾

The subjects of a study were 18 patients with symptomatic mild stenosis (<50%) on angiography from among 175 patients who underwent [revascularization](#).

The plaques were evaluated by black-blood magnetic resonance imaging (BB-MRI) and [ultrasonography](#) (US) and classified into 2 types: type 1 (n = 15), a lesion with an ulcer or mobile plaque or thrombosis on angiography or US; and type 2 (n = 3), a lesion without any of the above. Fourteen patients underwent carotid endarterectomy (CEA), and 4 patients underwent carotid artery stenting.

The stenosis on angiography was 27.2% ± 10.7 (5%-41%), and the area carotid artery stenosis rate on US was 69.8 ± 14.5% (44.5%-97%). The stenosis rate of these 2 methods was not at all correlated. In type 1 plaque that underwent CEA, 10 of 11 patients had vulnerable plaque by histopathology, and 1 patient had thrombus on the plaque by operative findings. In type 2 plaque that underwent CEA, all patients had vulnerable plaque by histopathology. During the follow-up period, none of the patients had restenosis or stroke.

The findings of US and BB-MRI in patients with symptomatic mild stenosis (<50%) on angiography are important for determining treatment. If BB-MRI or US shows the findings of vulnerable plaque in mild stenosis, surgical treatment may be considered for these patients ³⁾

References

1)

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