## ABSTRACT

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Vascular complications in patients with brain tumors.

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PURPOSE OF REVIEW: Venous thromboembolism (VTE) and other vascular events are common in patients with brain tumors, but their optimal management is not firmly established, in large part due to the competing risk of intracranial hemorrhage (ICH) in this population.

RECENT FINDINGS: There is conflicting evidence on whether therapeutic anticoagulation increases the risk of ICH in patients with brain tumors, with several metanalysis and retrospective cohort studies showing an increased risk and others showing no differences. Current guidelines recommend anticoagulating brain tumors patients with VTE with either low-molecular weight heparin (LMWH) or direct oral anticoagulants (DOACs), and several retrospective studies have shown the risk of ICH with DOACs is similar or smaller than with LMWH.

SUMMARY: An increased risk of VTE exists in a variety of brain tumor types. Most patients with brain tumors and VTE should receive therapeutic anticoagulation, and recent retrospective evidence supports the use of both LMWH and DOACs as effective and relatively safe in this setting. Patients with brain tumors are also at increased risk of other vascular tumor- or treatment-related complications whose optimal management is unclear.

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