venous thromboembolism cannot be endorsed for all patients with primary CNS tumors or untreated CNS metastases. After a frank discussion of the risks and benefits, it can be considered for an individual patient with additional high-risk factors, as described in my review.

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More on Platelet-Rich Plasma Injections in Acute Muscle Injury

TO THE EDITOR: Reurink et al. (June 26 issue) report no benefit of intramuscular platelet-rich plasma (PRP) injections in patients with acute hamstring injuries. The delayed administration and low dosage of PRP injections in their trial may well have rendered PRP injections ineffective. Growth factors in PRP exert an antiapoptotic, chemotactic, antiinflammatory, and proliferative effect on fibroblasts, neurons, and myoblasts; some of these effects are dose-dependent and strongly influence myogenesis, angiogenesis, and fibrogenesis. These events occur a few hours after muscle damage. By the time PRP injections are administered (within 5 days after the injury), many of the injured microenvironmental biologic targets of PRP have either disappeared or undergone a phenotypic shift. Three in vivo studies in which PRP treatment was initiated either a few hours or 2 days after injury showed histologic or functional improvement in the group of patients who received treatment. The dosages in these studies were at least 2.5 times as high as the dosages conveyed for each injection in the trial by Reurink et al. (insulin-like growth factor 1 [IGF-1], 225,000 pg vs. 90,000 pg, and dosage of platelet-derived growth factor [PDGF], 50,000 pg vs. 20,000 pg).

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THE AUTHORS REPLY: The timing of PRP injections is subject to debate, since the environmental milieu and the effect of growth factors change over time during healing. In vivo studies do not show that the optimal time window for injections is within 2 days after injury, since this has not been compared with a delayed period before administration of injections. In previous clinical studies involving athletes with acute muscle injuries, the PRP was injected 2 or 3 days after inju-