

A Retrospective Study of DVT in Patients with Primary Malignant Brain Tumors

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Purpose:

Retrospective data retrieval to review patients with malignant gliomas to analyze risk factors for thromboembolic events (TE), determine the incidence of DVT in this patient population, and to determine the efficacy and safety of outpatient management of TE.

Methods:

The records of Mayfield Clinic neuro-oncology service patients with malignant gliomas from 1992 to date are being reviewed for factors including age, gender, race, neurological signs, medications, treatment history, pathology, and image findings. Thromboembolic factors including prior history of DVT or PE, known coagulation disorder, lower extremity symptoms, and Doppler findings are also being reviewed.

Results:

The total number of eligible patients with TE was 394; mean age female: 51 (17-84); mean age males: 50 (18-86). The number of patients with TE was 92 (23%); incidence in males: 26%; incidence in females: 18%; mean age of patients with TE: 53 (18-86); mean age of non-TE group: 50 (18-84). Preliminary findings in outpatient management showed that one patient (1%) died from intracranial hemorrhage as a complication of anticoagulation.

Conclusions:

The preliminary results indicate that patients with primary malignant gliomas are at high risk of thromboembolic events. The preliminary results suggest that males may be at higher risk than females (pending multivariate analysis). Outpatient management with enoxaparin sodium appears safe and effective. Based on the high incidence rate of thromboembolic events, early patient education is important. Prospective studies into defining coagulation defects and preventative management are indicated.