Utilization Of Dural Tack-Ups After Glioma Resection Is Not Associated With Decreased Incidence Of Subdural Or Epidural Blood Accumulation

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BACKGROUND
Acute bleeding commonly results after resection of malignant gliomas. Acute epidural and subdural hematomas can form within the resection cavity, causing midline shift and necessitating emergent re-operation for evacuation. We sought to determine whether use of dural tack-ups was associated with a decreased incidence of Epidural or subdural hematoma formation.

RESULTS
236 total patients were identified within the study period with 56 ultimately meeting inclusion criteria. Of these patients, 7 (12.5%) were seen to have been closed using dural tack-up in one way or another. For the rest of the patients, no mention of use of dural tacks-up was made. This is either because the surgeon did not use them or possibly because it was simply not mentioned. With the patient for whom dural tacks-ups were used, none were seen to develop post-operative bleeding. For the patients for whom there was no mention of use, there were 2 (4.08%) cases where revision surgery occurred for treatment of acute blood formation. Direct comparison of incidence between groups was not possible.

MATERIALS AND METHODS
An institutional retrospective chart review was conducted on all patients who underwent a craniotomy for glioblastoma (GBM) resection from 2012-2018 performed by 9 individual surgeons. Records were analyzed for use of dural tack-up as a component of closing. Additionally, incidence of re-operation within 48 hours along with incidence of epidural and subdural hematoma formation was recorded and analyzed.

CONCLUSIONS
Based on our study, there is insufficient evidence to suggest that use of dural tack-up, as a part of closing after glioma resection, is associated with decreased incidence of epidural or subdural hematoma collection. However, given that use of dural tack-ups was under reported within our study, additional studies are needed to confirm this finding.