INTRODUCTION

• The external ventricular drain (EVD) is commonly used in the Neurocritical care unit.
• Placement of an EVD can be complicated by hemorrhage surrounding the catheter insertion tract, which in some cases may prove to be fatal.
• This study was designed to look at the rate of tract hemorrhages after EVD placement.

METHODS

• Retrospective review of all patients who underwent EVD placement during a three year period using our institutional database.
• Post-insertion computerized tomography (CT) scans of the head were analyzed independently by two physicians to identifying tract hemorrhages.
• Data on primary diagnosis, age, sex, length of ICU stay and mortality were collected and analyzed.

RESULTS

• 115 patients were identified as having had an EVD placed during their hospital course.
• 100 patients were analyzed, of which 43% were male. Mean age was 59.4 years.
• The rate of tract hemorrhages among all patients with EVD images was 21%.
• 50% of patients had a diagnosis of subarachnoid hemorrhage, 45% with intraparenchymal hemorrhage and 16% with ischemic stroke.
• Mortality was 15% among all EVD patients.
• Asymptomatic tract hemorrhages occurred in 19 patients (95.2%) with one patient (4.8%) dying due to the tract hemorrhage itself.
• Among patients with tract hemorrhages mortality was 14.3%.

CONCLUSION

• The rate of tract hemorrhages was noted to be 21%.
• Majority of tract hemorrhages were asymptomatic.
• There was no difference in mortality among patients with EVDs who developed tract hemorrhages compared to patients with no tract hemorrhages.

REFERENCES