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9. RISK OF DELAYED INTRACRANIAL HEMORRHAGE IN PATIENTS ON ANTICOAGULATION WITH NEGATIVE INITIAL IMAGING

Presenter: Meryl Ethridge MD | Ascension St. John Hospital and Medical Center
M Ethridge, J Keller, E Edhayan

Background: It is many institutions protocol to obtain a delayed head computed tomography (CT) in patients presenting after a ground level fall while on anticoagulation, even without any neurologic changes. The aim of this study is to evaluate the risk of delayed Intracranial Hemorrhage (ICH) from ground level falls in patients on anticoagulation.

Methods: A retrospective chart review from Jan 1, 2014 to Dec 31, 2018 was performed on patients on anticoagulation/antiplatelets who presented after a ground level fall with a negative initial head CT scan and a Glasgow coma scale (GCS) greater than 8. Patients received a repeat head CT within 48 hours of their initial CT. The injury severity scale (ISS) was calculated for all patients.

Results: 636 patients were reviewed. Five patients (0.79%) had an ICH on repeat head CT; of which all survived and none required neurosurgical intervention. Variables such as type of anticoagulant, loss of consciousness, external head trauma, sex, age, were not found to have any correlation with development of ICH. The overall mortality rate was 3.9% (25/636) and none of these patients had a delayed ICH. The ISS in the patients with a delayed ICH was significantly higher than those without an ICH, 13.8 versus 3.5 ($p < 001$).

Conclusion: Patients on anticoagulation who present to the hospital after a ground level fall with a GCS above 8, and an initial negative head CT do not need to undergo a repeat CT. It is low yield and not cost effective. The ISS could be used to stratify patients who are at higher risk of delayed ICH.