RETROSPECTIVE ANALYSIS OF PATIENTS WITH SYNCOPE: ARE WE ORDERING UNNECESSARY CT SCANS?

Poster Contributions
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Authors: Mohammad Mehdi Ansari, Saurabh Baghi, NYP/TBHC - Weill Cornell, New York, NY, USA

Background: Syncope is a common presenting complaint in the ER and is up to 6% of admissions every year with an estimated workup cost of more than $2 billion. Many low yield diagnostic tests are ordered seemingly due to a lack of a clear follow of standardized evaluation algorithm. Head computed tomography (CT) scan is not widely recommended and expensive but routinely ordered for evaluation of syncope. Our study was undertaken as a quality control performance improvement initiative to evaluate the diagnostic yield of CT Scan.

Methods: For the purpose of our study, a retrospective chart review was done of 108 patients presenting to ER from January 2011 to May 2011 with the complaint of syncope. Their demographics, presentation, history and diagnostic studies particularly all CT scans results were collected and analyzed.

Results: Data on a total of 108 pts were analyzed. Average age of pts was 69 +/- 15 with a clear predominance of females 62% compared with male 38%. Of the pts presented, 69% were African Americans followed by 22% Hispanics and 8% White. 55% were found to have some kind of abnormality on EKG. 82% pts underwent a CT scan of head of which only one patient showed a questionable new infarct, 21% of CT scans showed chronic micro-vascular changes. Only one detected a meningioma and one was positive for a subdural hematoma. All others were normal CT scans (96%). 5 pts underwent an MRI and all were stated as normal. 56% pts underwent Carotid Doppler’s and of these only 5% had significant findings. Majority of syncope in our study were found to be vasovagal.

Conclusions: Our study that was done as a quality control performance improvement initiative, though done on a small set of patients clearly indicates the excessive use of CT scans in syncope workup. CT scan of the head seems to be a low yield diagnostic study in the evaluation of syncope. It is usually recommended only in patients presenting with abnormal neurological findings on physical exam, history consistent with a seizure episode or in patients with associated trauma. Cutting down the number of inappropriate CT scans of head could be an enormous cost saving measure in this economy. This will support appropriate use of available resources.