NATIONAL TRENDS AND COMPARATIVE OUTCOMES OF CATHETER-DIRECTED THROMBOLYSIS PLUS ANTICOAGULATION VERSUS ANTICOAGULATION ALONE IN THE TREATMENT OF CAVAL DEEP VEIN THROMBOSIS

Poster Contributions
Hall C
Sunday, March 30, 2014, 9:45 a.m.-10:30 a.m.

Session Title: Vascular Medicine: Emerging Topics from a Rapidly Changing Landscape
Abstract Category: 33. Vascular Medicine: Venous Disease
Presentation Number: 1177-77

Authors: Riyaz Bashir, Chad Zack, Huaqing Zhao, Eric Choi, MD, Grayson Wheatley, Howard Cohen, Alfred Bove, Temple University School of Medicine, Philadelphia, PA, USA

Background: The nationwide acute safety outcomes and the role of catheter-directed thrombolysis (CDT) in treatment of caval deep vein thrombosis (DVT) are unknown.

Methods: We used the Nationwide Inpatient Sample (NIS) database from 2005 to 2011 to identify all patients admitted with a principal discharge diagnosis of caval DVT (ICD-9-CM 453.2). Among a total of 2,674 patients admitted with caval DVT, 26.9% (718) underwent CDT. We evaluated the national trends in the utilization rates of CDT using unmatched patients. The comparative outcomes analysis was performed using propensity scores and Elixhauser comorbidity index to match the two treatment groups. After 1:1 matching we compared in-hospital outcomes between the patients treated with CDT plus anticoagulation (598 patients) versus anticoagulation alone (598 patients).

Results: The national CDT utilization rates gradually increased from 16.0% in 2005 to 34.7% in 2011. The groups that were less likely to be treated with thrombolysis included females (22.4% versus 31.7%; p <0.001), and African Americans (21.2% versus 29.1%; p<0.001). The outcomes analysis of the matched groups showed that in-hospital mortality was not significantly different between the CDT group and the anticoagulation alone group (2.5% versus 1.2%; p= 0.132). The rates of blood transfusion, pulmonary embolism, intracranial bleeding, and acute renal failure were significantly higher in the CDT group, however the IVC filter placement rates were not significantly different between the two groups. The CDT group also had increased length of stay (8.4±6.6 versus 6.8±7.2 days; P < 0.001) and hospital charges ($109,436 ± 98,467 versus $51,626 ± 76,835; p<0.001) than the anticoagulation alone group.

Conclusions: In this nationwide observational study, we found that in-hospital morbidity with catheter-directed thrombolysis remains higher than anticoagulation alone, however the in-hospital mortality was not significantly different between the two groups. We also found that CDT was associated with increased costs and healthcare resource utilization.