Dexter DVT versus Sinister DVT: Which is the More Sinister?

ACC Poster Contributions
Ernest N. Morial Convention Center, Hall F
Monday, April 04, 2011, 9:30 a.m.-10:45 a.m.

Session Title: Venous Thrombosis/Pulmonary Embolism/Pulmonary Hypertension
Abstract Category: 12. Venous Thrombosis/Pulmonary Embolism/Pulmonary Hypertension
Session-Poster Board Number: 1078-130

Authors: Behnoood Bikdeli, Babak Sharif-Kashani, Ehsan Chitsaz, Bavand Bikdeli, Mandana Chitsazan, Saeed Kermani-Randjbar, Neda Behzadnia, Shahram Yazdani, Leila Saliminejad, Mohammad-Reza Masjedi, National Research Institute of Tuberculosis and Lung Disease, Tehran, Iran (Islamic Republic of), Cardiovascular Research Center, Shahid Beheshti University MC, Tehran, Iran (Islamic Republic of)

Background: Deep vein thrombosis (DVT) is a major health problem. Despite the prosperity of studies on its epidemiology, few have described the thrombus sidedness, and particularly its association to clinical presentation and subsequent complications. We assessed the effect of thrombus sidedness on the aforementioned issues.

Methods: This is the first report from the prospective NRITLD DVT registry. Patients with ultrasound-confirmed symptomatic DVT were enrolled and thrombus sidedness was investigated in all of them. Computed tomography pulmonary angiography was used to diagnose coexisting pulmonary embolism (PE) in DVT patients with symptoms suggestive of PE. Embolic burden score was calculated for those with PE.

Results: From the total of 100 patients, 45 had left-sided DVT, 41 had right-sided DVT; while 14 had bilateral DVT. Presenting symptoms and co-morbidities were comparable, except for cancer which was more common in those with right-sided involvement (either right-sided, or bilateral DVT, P=0.004). Compared to those with left-sided DVT, pulmonary embolism happened more frequently in right-sided DVT patients. Right-sided DVT patients also had a higher rate of massive PE (P=0.03), and a greater mean embolic burden (13.32 ± 1.63 versus 6.05 ± 1.06, P=0.001).

Conclusions: Our main objective was raising awareness for global reconsideration on the assumption of complete identicalness of right-sided and left-sided DVT. Future studies can better elucidate the epidemiologic and prognostic differences based on the thrombus sidedness. Our findings suggest that the two are not fully identical and right-sided DVT might be more ominous.