DVT and PE rates; unrelated: 23 years literature review

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Introduction: Pulmonary embolus (PE) is thought to arise from lower extremity DVT. Lower extremity (LE) DVT surveillance is commonly used in trauma patients at risk for DVT (deep vein thrombosis).

Methods: A comprehensive DVT surveillance literature review over the past 23 years was performed assessing 1) the effect of surveillance on DVT and PE rates, 2) efficacy of chemoprophylaxis (CP) and mechanical prophylaxis (MP), and the relationship between DVT and PE. 24 publications including over 13,000 patients were found.

Results: DVT rates are significantly higher with surveillance with a rate of 8.5% vs. 2.6% without surveillance. PE rate without surveillance was 1.3% similar to a rate of 1.1% with surveillance (p=0.6093). There is no association between DVT rates and PE rates (P=0.7574). CP was associated with a reduction in DVT rate to 4.4%; no CP had a much higher DVT rate of 11.7%. Similarly, PE rate was lower at 0.8% on CP vs. 1.5%. MP decreased DVT rate to 7.9% vs. 13% without MP. PE rate was similar without MP 1.5% vs. 1.2% with MP. With no CP and no MP; DVT rate was 13% and PE rate was 1.5% vs. 7.8% and 1.2% respectively with CP and/or MP.

Conclusions: DVT surveillance of the lower extremities appears to be very effective in diagnosing DVT; however the risk of PE is not decreased. Our data suggest that PE rates are not associated with (LE) DVT rates. The historical notion of their relationship may not be true. New paradigms need to be developed.

Biography

Hiba Abdel Aziz received her Medical degree from the Royal College of Surgeons in Ireland. Her general surgery residency and fellowship in trauma/critical care were at the prestigious Institutes of Case Western Reserve University. She joined the staff at the Cleveland Clinic Foundation, University Hospitals of Cleveland and St. Elizabeth Medical Center, Ohio. She is an Assistant Professor at Northeast Ohio Medical University and a diplomate of the American Board of Surgery with added qualifications in Surgical Critical Care. She Chairs the Trauma guidelines committee and is Program Director of the trauma critical care fellowship at Hamad General Hospital.

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