We retrospectively examined this association in hospitalized patients, highlighting anatomically associated VTEs (those with DVT in the PICC extremity)” Kimple and Nazir (2017).

Abstract:

Background: Peripherally inserted central catheters (PICCs) are ubiquitous in modern hospitals, but are associated with venous thromboembolism (VTE), which includes deep vein thrombosis (DVT) and/or pulmonary embolism (PE). We retrospectively examined this association in hospitalized patients, highlighting anatomically associated VTEs (those with DVT in the PICC extremity).

Methods: Charts with an International Classification of Diseases, Ninth Revision (ICD9) code for VTE were collected from a discharge database of PICC-managed patients at a tertiary hospital. A sample (52.3%) of the VTE charts was manually reviewed to verify PICC-associated VTE (unverified charts were excluded), and determine such data as the extremity in which each DVT was diagnosed (using ultrasound reports). VTE rates were calculated using an uncorrected method (from charts with VTE ICD9 code) and a corrected method (from charts with manually verified PICC-associated VTE).

Results: Our uncorrected VTE rate was 3.9% (P < .0001), whereas the corrected rate was 1.5%. Among 125 charts with manually verified PICC-associated VTE, 69 (60.5%) out of 114 patients with a DVT had their DVT occur in the PICC extremity, yielding an anatomically associated VTE rate of 0.84%. The most common reason for a chart being excluded (60.2%) was a VTE occurring before PICC placement.

Conclusions: We found clinically significant rates of PICC-associated VTE. The majority of patients’ DVT occurred in the same extremity as their PICC, lending further evidence that PICCs are an independent risk factor for VTE and require judicious use. There was also a discrepancy in VTE rate derived from ICD codes alone vs. manual chart review.
Reference:


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