We investigated which arm and vein led to the most successful outcomes during non-fluoroscopic peripherally inserted central catheter (PICC) insertion” Jeon et al (2016).

Abstract:

OBJECTIVE: We investigated which arm and vein led to the most successful outcomes during non-fluoroscopic peripherally inserted central catheter (PICC) insertion.

METHODS: A total of 743 cases from July 2012 to March 2014 were retrospectively reviewed. We also analyzed the following: 1) accessed arm (right or left), 2) accessed vein (cephalic, basilic, or brachial), 3) primary and secondary success rates, 4) causes of failure (location of obstacles), and 5) problemsolving methods for catheter repositioning.

RESULTS: The primary success rate was 46.3% (344/743) with 49.4% (123/249) on the right arm and 44.7% (273/494) on the left arm. The secondary success rate was 53.7% (399/743) with 50.6% (126/249) on the right arm and 55.3% (273/494) on the left arm. The causes of failure were 100% (43/43) for the left cephalic vein, 61.5% (8/13) for the right cephalic vein, 50.6% (43/85) for the left brachial vein, and 51.1% (23/45) for the right brachial vein.
(187/366) for the left basilic vein, and 49.7% (95/191) for the right basilic vein. The failure rate through the left cephalic vein was significantly higher than that for other veins. The most common locations of obstacles were the subclavian vein (28.8%, 115/399), axillary vein (24.3%, 97/399), and brachiocephalic vein (19.3%, 77/399). The most common problem-solving methods were with guidewire assistance (74.7%, 298/399), venographic guidance (13.8%, 55/399), and fluoroscopic guidance (11.5%, 46/399).

CONCLUSIONS: Right-arm access through the basilic or brachial vein may be more appropriate for successful nonfluoroscopic PICC insertion compared with the access through the left arm and the cephalic vein.

Reference:


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