This study indicated fewer complications with right-sided insertion irrespective of hand dominance” Paquet et al (2017).

Abstract:

INTRODUCTION: The aim of this study is to determine if right arm peripherally inserted central catheters (PICCs) experienced fewer complications while controlling for gender, hand dominance, history of malignancy, dwell time and catheter size.

METHODS: This was an intention-to-treat randomized controlled trial conducted in an academic medical center on two different sites between September 2012 and September 2015. All patients older than 18 years or age without known history of previous central line, contraindication to the use of a specific arm or hospitalized in the intensive care unit regardless of coagulation status, were considered for the study. Participants were randomized to the left or right arm group and were followed until catheter removal. Data collected included: PICC characteristics, insertion details, gender, arm dominance, history of malignancy, reason for insertion/removal, incidence of a complication and total dwell time. One-tailed hypothesis testing using a univariate logistic regression with odds ratio (OR) calculation was used to analyze the results. There were 202 patients randomly assigned,
totaling 7657 catheter-days; 103 patients to the right-side group and 99 patients to the left-side group.

RESULTS: Participants in both groups were statistically equivalent for right handedness, gender, oncologic status, average dwell time and total catheter days. The overall incidence of complications on the right side was 23% versus 34% on the left side, confirming the hypothesis that right-sided insertions led to fewer complications ($p = 0.046$). The risk of a complication was reduced by 40% with right-sided insertion (OR 0.58 (CI: 0.31-1.09).

CONCLUSIONS: This study indicated fewer complications with right-sided insertion irrespective of hand dominance.

Reference:


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