To evaluate parameters that influence the amount of movement of peripherally inserted central catheter (PICC) tips regarding upper limb movement” Cho et al (2017).

Abstract:

PURPOSE: To evaluate parameters that influence the amount of movement of peripherally inserted central catheter (PICC) tips regarding upper limb movement.

METHODS: In a prospective 12-month observational study, 200 PICCs were implanted in 162 patients (mean age 56.8 ± 15.2 years) by interventional radiologists into the basilic vein of the mid-aspect of the upper arm. Three PICC tip positions were documented with a chest x-ray: patient supine with an abducted (90°), an adducted arm, and in an upright position with an adducted arm. Multivariable analyses were performed, based on the three positions: body mass index (BMI), number of lumens, age, gender, side of the implantation, and brand.

RESULTS: Up to 88% of the PICCs dislocated in a mean of 19 mm cephalad when the patient was positioned from a supine in an upright position. The greatest influence upon dislocation was the position change from supine to upright. The side of the implanted PICC (left vs. right)
had no influence.

CONCLUSIONS: Cephalad dislocations of mean 19 mm regularly occur in the upright position induced by gravity. This needs to be taken in account and the PICC should be safely positioned one vertebra lower in the superior vena cava superior with a last confirmation of the PICC placement in an upright position.

Reference:


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