
Abstract:

OBJECTIVE: To compare the incidence and reasons for nonelective removal of percutaneously inserted central catheters (PICC lines) between centrally and noncentrally placed PICC lines in neonates.

DESIGN: Prospective cohort study.

SETTING: A 60-bed, tertiary-level neonatal intensive care unit in a private hospital in São Paulo, Brazil.

PARTICIPANTS: Neonates who were born at the hospital and underwent successful insertion of 237 PICC lines. They were divided into two groups, central and noncentral, according to tip position.

METHODS: Neonates were monitored daily from insertion of the PICC until its removal. Data were collected from medical records.

RESULTS: Of the 237 PICCs analyzed, 207 (87.4%) had their tip in a central position and 30
(12.6%) in a noncentral position. The incidence of nonelective PICC removal was similar between the central and noncentral groups (p = .48). The reasons for nonelective removal were significantly different between the groups (p = .007), with a higher incidence of extravasation in the noncentral group.

CONCLUSION: Noncentrally placed PICCs can provide vascular access in neonates requiring venous access for the administration of intravenous solutions. Many potential catheter-related complications can be prevented by careful bedside nursing. Frequent monitoring of noncentral PICCs is necessary to detect and prevent extravasation in neonates.
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