PICC COMPLICATIONS WITH ANGIOGRAPHIC STUDIES & X-RAYS

Disclosure

- Teleflx

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Learning Objectives

- Review of early and late complications
- Discuss iatrogenic misadventures
- Documentation considerations
- Assessment and device troubleshooting
- What is acceptable?
Catheter short. No comment about catheter moving in the Azygos vein.

Migration of central lines from the superior vena cava to the azygos vein

This is a retrospective review of the clinical history and imaging of 11 patients whose central lines migrated from the superior vena cava to the azygos vein. The time course of migration, access route of the catheters, outcome, and depth of placement in the superior vena cava and azygos vein was investigated.

Methods

Seven of the catheters were originally positioned in the superior vena cava. Four of the catheters were originally positioned in the azygos vein and were repositioned into the superior vena cava at the time of placement. The time to migration ranged from 31 to 130 days, average 43 days. In three cases, the migration was not reported at the first opportunity, resulting in a delay in diagnosis ranging from 10 to 27 days. All but one of the catheter extended at least 13 cm (range 5.6-7 cm) below the top of the right mainstem bronchus when in the superior vena cava.

Conclusions

Risk factors for migration into the azygos vein include placement from a subclavian approach and original positioning in the azygos vein with incorrect repositioning. The depth of placement in the superior vena cava was not a protective factor. It is important to recognize migration because of the elevated risk of complications when central lines are placed into the azygos vein.

Contributing factors for a late spontaneous peripherally inserted central catheter migration: a case report and review of literature

(PMID: 25744055)

Abstract

Boccara P, Stroili S, Muzi M, Barilleri L, Gremoli P, Zangrillo A.
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ABSTRACT

PURPOSE: Peripherally inserted central catheters (PICCs) are associated with some adverse events. We report three cases of spontaneous late migration of central lines, two in an adult population and one in a pediatric population. In our two cases, patients’ history was an important contributing factor for late spontaneous PICC migration.

METHODS: We conducted a systematic review of all manuscripts describing PICC spontaneous late migration in adult populations and we also described two cases of late PICC migration.

RESULTS: We identified five studies for a total of 58 cases of PICC late migration. In our two cases, patients’ history was an important contributing factor for late spontaneous PICC migration.

CONCLUSIONS: To avoid late catheter displacement, initial management should be immediately identified and promptly corrected and a detailed patients training should be carried out.
Multifactor Analysis of Malposition of Peripherally Inserted Central Catheters in Patients With Cancer.

(Uecker et al.)

Abstract

BACKGROUND: Peripherally inserted central catheters (PICCs) are used widely in patients with cancer, but catheter malposition often occurs.

OBJECTIVES: This study aimed to provide a reference for clinically safe catheterization through multivariate analysis of malposition of PICCs in patients with cancer.

METHODS: The occurrence of PICC malposition in patients with cancer was retrospectively reviewed, and a multivariate logistic regression analysis was performed.

RESULTS: 7571 PICC patients were included, and 149 cases of malposition were identified. A multivariate logistic regression analysis revealed that the risk of adverse events from malposition was higher in the right arm than in the left arm and the left upper limb. The highest risk from malposition was cephalic vein puncture, followed by brachial vein puncture. The risk in the lower limb of the upper part was higher than in the upper part of the lower limb. During PICC insertion, the left upper limb and upper arm should be selected as the first choice to reduce the incidence of malposition and adverse events.
Summary

- Assessment and tactile feel is important
- Policy and procedure protect us
- Our patients come with risks
- Iatrogenic misadventures can be avoided

Thank You