Cumulative incidence of complications in adults with peripheral venous catheter

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Introduction: The insertion of a peripheral venous catheter (PVC) is not free from complications. The most common being phlebitis, infiltration and obstruction⁽¹⁻²⁾. The complication results in removal and insertion of a new catheter, discomfort of a venous puncture, stress to the patient and nursing staff, an increase in time of nursing care, as well as putting patient safety at risk⁽³⁾.

Objective: To analyze the cumulative incidence of complications related to the PVC in adults.

Method: Cohort study that followed 110 patients in a medical service in Portugal, during 82 consecutive days, between July and September/2015. Patients with PVC were included. Descriptive statistics using SPSS was used.

Results: Complications in PVC:

- Obstruction - 50.0%
- Infiltration - 45.5%
- Accidental removal of the catheter by the patient - 41.0%
- Phlebitis - 35.5%
- Fluid leakage on the insertion site - 19.0%
- Pain on the insertion site - 11.8%
- Hematoma - 0.9%

Discussion & Conclusion: Obstruction, infiltration, accidental removal and phlebitis were the complications with the higher incidence. Despite phlebitis having been the focus of intervention in an investigation⁽¹⁾ and it being one of the most studied complications⁽¹⁻³⁾, it presented high incidence in this research. Analysis of risk factors for these complications is suggested in order to subsidize the implementation of nursing care in the context of prevention and to ensure the criteria for selection and indication of a venous catheter⁽⁴⁾.

References:

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