The focus of this prospective observational research is to study the various indications of a peripherally inserted central catheter (PICC) in different solid and hematological malignancies and the various complications and outcomes in the pediatric and adult cancer patients” Madabhavi et al (2018).

Abstract:

Effective and reliable venous access is one of the cornerstones of modern medical therapy in oncology. The focus of this prospective observational research is to study the various indications of a peripherally inserted central catheter (PICC) in different solid and hematological malignancies and the various complications and outcomes in the pediatric and adult cancer patients. This study was conducted in a prospective observational study design and collected data of patients with a diagnosis of any cancer, at a tertiary care oncology hospital in Ahmadabad, Gujarat, India, during a 2-year period. The PICC was inserted in 352 patients and most commonly used in hematological conditions (n = 295, 83.8%), followed by solid malignancies 57 (16.2%). In the hematological malignancy group, acute myeloid leukemia (48.01%) was the most common indication, and in the solid malignancies group, osteosarcoma (n = 9, 2.55%) was the most common indication for PICC insertion. PICCs were inserted most commonly in the left side of the venous system in 70.7% cases. The complications in the PICC study group included infections (12.5%), thrombosis (4.82%), catheter blockage (4.82%), arrhythmias (4%), premature catheter removal (3%), bleeding (2.55%), and pneumothorax (2.55%).

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The median days of the PICC use in situ were 152 days. To conclude from our study, PICCs are most commonly indicated in malignancies that are requiring long-term chemotherapy, such as hematological malignancy, especially acute myeloid leukemia, and solid
malignancies, usually osteosarcoma, and these catheters are associated with complications such as infection, thrombosis, catheter blockage, arrhythmia, bleeding, and pneumothorax. The most disturbing aspect of the treatment of a cancer patient is multiple painful venipunctures made for administration of cytotoxic agents, antibiotics, blood products, and nutritional supplements. From this study, we can infer that PICC lines can be used for various malignancies that require long-term chemotherapy.

Reference:


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