**Prospective monocentric study: complications related to Peripherally Inserted Central Catheters (PICC)**

**Background**
Peripherally Inserted Central Catheters (PICCs) are long-term intravenous catheters used for drug administration when the duration of parenteral therapy exceeds six days.

**Purpose**
A monocentric and prospective study was performed to analyze the incidence and the nature of the PICC-related complications in a routine clinical practice.

**Materials and Methods**
All PICCs implanted between December 1, 2012 to March 6, 2013 were included. Clinical data of inpatients and outpatients were collected until May 1, 2013.

**Results and Discussion**

- **206 PICC implanted – 184 patients**
  - Between December 1, 2012 and March 6, 2013
  - 2 lost (0.97%)

- **204 PICC analyzed – 5116 catheter days (1503/5116 related to outpatients)**
  - Between December 1, 2012 and May 6, 2013
  - 194 PICC extracted
  - 95.1% - median duration: 16.0 days (0-97)
  - 10 PICC still implanted
  - 4.9%

- **114 ends of treatment**
- **58/204 complications (28.4%)**
  - 22 death
  - 30 mechanical complications
    - 14.7%
  - 12 occlusions
    - 5.88%
  - 18 accidental removals
    - 8.8%
  - 7 verified CRI
    - 3.43%
    - 1.37 / 1000 cd
  - 5 probable CRBSI
    - 2.45%
    - 0.98 / 1000 cd
  - 2 local infections
    - 0.98 %
    - 0.39 / 1000 cd
  - 5 CRBSI
    - 2.45 %
    - 0.98 / 1000 cd
  - 14 without infection
  - Parenteral nutrition as a risk factor of CRBSI
    - (OR=13.0; CI95: 2.77-82.38, P=0.0002)

**Conclusions**
Due to their low organic complication rates and their significant use for outpatient, PICCs appear to be a good alternative for a central venous access in case of needing a median or a long-term catheter. A better understanding of their usage and the training of healthcare workers are required to avoid the complications.