As a primary objective, this study aimed to collect complications related to PICCs in primary neuro-oncological patients. As a secondary objective, the study aimed to evaluate PICC tolerability (Simonetti et al. 2019).

Abstract:
PURPOSE: The use of central venous catheters with peripheral insertion (PICC) has increased rapidly in recent years, particularly in cancer patients. The benefits provided may occasionally be affected by relevant complications, such as infections and thrombotic events, especially in neuro-oncological patients. To date, the risk of PICC-related complications in this subset of patients is unknown, as is tolerability. As a primary objective, this study aimed to collect complications related to PICCs in primary neuro-oncological patients. As a secondary objective, the study aimed to evaluate PICC tolerability.

METHODS: Neuro-oncological patients with PICCs that were placed as part of normal clinical practice at IRCCS Neurologico C. Besta were consecutively enrolled in the study. PICC-related complications were recorded immediately (during the procedure), early (within 1 week after PICC insertion), and late (1-3-5 months after PICC placement). At the same time points, all patients were also evaluated for tolerability through interviews with semi-structured, open-ended questions.

RESULTS: Sixty patients were enrolled (41 males and 19 females, with a median age of 56.2 years). Excluding loss to follow-up, 33/49 patients developed at least one complication related to the PICC. Immediate complications mainly included hematoma (8), accidental arterial puncture (4), and primary malpositioning (3). Regarding early and late complications, 3 device-related infections, 8 thrombotic events, and 20 mechanical complications were registered. Semi-structured interviews revealed an overall positive experience with the device. The most negative impact was on hygiene habits, with 34 patients becoming caregiver-dependent. Over time, almost all patients became used to the device and perceived greater security during chemotherapy. A strongly negative issue was the difficulty of relying on competently trained healthcare personnel in outpatient setting.

CONCLUSION: The results showed a nonnegligible increased thromboembolic risk in neuro-oncological patients with PICCs, almost double that in historical oncological populations. It is essential to extend the study to a greater number of patients to achieve reliable results and to identify patients at high risk. The device seems to be positively accepted by the majority of patients, without affecting activities of daily living. You may also be interested in...
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