

The prevalence and incidence rates of CRT in our AL patients were higher than predicted for a general cancer patient population. These rates were higher in the PICC group compared to the CICC group” Refaei et al (2016).

Abstract:

Central venous catheters are a leading cause of upper-extremity deep vein thrombosis. Concomitant severe thrombocytopenia makes anticoagulation for catheter-related thrombosis (CRT) in patients with acute leukemia (AL) a challenge. Incidence of CRT has been reported to be increased in those with peripherally inserted central catheters (PICC) vs. those with centrally inserted ones (CICC).

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Our objective is to compare the incidence rate of CRT in leukemia inpatients who received either a PICC vs. CICC. We retrospectively reviewed adult inpatients admitted to hematology wards with a new diagnosis of AL and who received either a PICC or a CICC. Baseline patient and catheter characteristics were recorded. Our primary outcome was the incidence rate of CRT in each group. The secondary outcomes included rates of infectious and mechanical complications. Six hundred sixty-three patients received at least one PICC (338) or CICC (325) insertion. A total of 1331 insertions were recorded, with 82 (11.7 %) and 41 (6.5 %) CRT in the PICC and CICC groups, respectively. The incidence rates were 1.89 and 0.52 per 1000 catheter day in the PICC and CICC groups, respectively. A PICC, when compared to CICC, was a significant risk factor for CRT (sHR 2.5, $p < 0.0001$). The prevalence and incidence rates of CRT in our AL patients were higher than predicted for a general cancer patient population. These rates were higher in the PICC group compared to the CICC group. We recommend careful consideration of thrombotic and bleeding risks of AL inpatients when choosing a central venous catheter.

Reference:



Refaei, M., Fernandes, B., Brandwein, J., Goodyear, M.D., Pokhrel, A. and Wu, C. (2016)
Incidence of catheter-related thrombosis in acute leukemia patients: a comparative,
retrospective study of the safety of peripherally inserted vs. centrally inserted central venous
catheters. Annals of Hematology. August 20th. .

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