The aim of this study is to investigate the impact of the time interval between port placement and initiation of chemotherapy and the neutropenia-inducing potential of the chemotherapy administered upon complication-related port removal” Kakkos et al (2016).

Abstract:

BACKGROUND: Totally implantable venous access port systems are widely used in oncology, with frequent complications that sometimes necessitate device removal. The aim of this study is to investigate the impact of the time interval between port placement and initiation of chemotherapy and the neutropenia-inducing potential of the chemotherapy administered upon complication-related port removal.

PATIENTS AND METHODS: Between January 2010 and December 2013, 4045 consecutive patients were included in this observational, single-center prospective study. The chemotherapy regimens were classified as having a low (<10%), intermediate (10-20%), or high (>20%) risk for inducing neutropenia.

RESULTS: The overall removal rate due to complications was 7.2%. Among them, port-related infection (2.5%) and port expulsion (1%) were the most frequent. The interval between port insertion and its first use was shown to be a predictive factor for complication-related removal rates. A cut-off of 6 days was statistically significant (p = 0.008), as the removal rate for complications was 9.4% when this interval was 0-5 days and 5.7% when it was ≥6 days. Another factor associated with port complication rate was the neutropenia-inducing potential of the chemotherapy regimens used, with removal for complications involved in 5.5% of low-risk regimens versus 9.4% for the intermediate- and high-risk regimens (p = 0.003).

CONCLUSION: An interval of 6 days between placement and first use of the port reduces the removal rate from complications. The intermediate- and high-risk for neutropenia...
chemotherapy regimens are related to higher port removal rates from complications than low-risk regimens.

Reference:


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