The aim of this study is to explore the related factors affecting infection risk caused by peripherally inserted central catheter (PICC) for bone tumor patients” He et al (2018).

Abstract

OBJECTIVE: The aim of this study is to explore the related factors affecting infection risk caused by peripherally inserted central catheter (PICC) for bone tumor patients.

METHOD: A retrospective analysis was performed for 223 bone tumor patients who received PICC and were admitted to our hospital from 2004 to 2017. A total of 18 cases (infection group) with PICC catheter-related infections and 205 cases without infection (noninfection group) were studied. First, factor analysis of variance or Chi-square test was applied to compare independent risk factors for PICC catheter-related infections, between bone tumor patients with catheter-related infections and those without catheter-related infections.

RESULTS: This retrospective analysis involved a total of 18 patients with PICC infections and 205 patients without infections. The infection rate was 8.07%. Factor analysis of variance showed that many factors were related to PICC catheter-related infections, including experience of operator ($\chi^2 = 3.48$, $P < 0.05$), catheter retention time ($\chi^2 = 7.478$, $P < 0.05$), receiving chemotherapy or not ($\chi^2 = 2.43$, $P < 0.05$), Karnofsky Performance Scale scores ($\chi^2 = 2.19$, $P < 0.05$) and the frequency of replacing pad pasting on the point of puncture ($\chi^2 = 2.23$). Logistic regression analysis showed that PICC catheter retention time (odds ratio [OR])
= 4.21, P < 0.05) and operator experience (OR = 2.80, P < 0.05) were independent factors affected PICC catheter-related infections.

CONCLUSION: Catheter-related infections were related to experience of PICC operator and length of catheter retention time.

Reference:

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