This study aimed to identify whether patients with advanced cancers were at high risk of peripherally inserted central catheter (PICC)-related complications when treated with concurrent chemo-radiotherapy” Xie et al (2017).

Abstract:

AIMS AND OBJECTIVES: This study aimed to identify whether patients with advanced cancers were at high risk of peripherally inserted central catheter (PICC)-related complications when treated with concurrent chemo-radiotherapy.

BACKGROUND: PICCs are widely used in chemotherapy. However, catheter usage may elevate the risks of infections and thrombosis. It is important to identify the patients with high risk of PICC-related complications. To date, little is known about PICC-related complications in patients with advanced cancers and receiving concurrent chemo-radiotherapy.

DESIGN: Five hundred sixty-nine cancer patients with advanced cancers and treated by chemo-radiotherapy were analyzed in the study. The incidences of PICC-related complications
were investigated.

METHODS: Univariable and multivariable logistic regression analyses were employed for identification of risk factors.

RESULTS: Eighty-six (15.1%) patients exhibited PICC-related infectious complications, of which 6.3% were local infection, 3.9% were catheter-related bloodstream infection (CRBSI) and 4.9% were exit-site infection. Sixty-five (11.4%) developed symptomatic PICC-related thrombosis and fifty-two (9.1%) were suffering from phlebitis. The overall complication rate was 53.1%. The univariable logistic regression and multivariate analysis showed that comorbidity (OR 1.51, P=0.0148) and body mass index (BMI) (OR 1.46, P=0.0157), and duration of radio-chemotherapy (OR 1.4733, P=0.0049) were significantly associated with PICC-related complications. Patients with PICC-related complications showed lower 5-year survival rate than those without PICC-related complications.

CONCLUSIONS: Identification of risk factors of PICC-related complications in patients with advanced cancer before catheter usage may play an important role in improvement of the prognosis.

Reference:
doi: 10.1111/jocn.13825

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