



This retrospective single-institutional review was performed to identify rates of complications from port placement and potential factors associated with these events” Skelton et al (2019).

Abstract:

Central venous access devices, specifically implantable ports, play an essential role in the care of oncology patients; however, complications are prevalent. This retrospective single-institutional review was performed to identify rates of complications from port placement and potential factors associated with these events. A retrospective analysis of 539 cancer patients who underwent port insertion between March 2016 and March 2017 at our institution was conducted. Data examining 18 potentially predictive factors were collected, and multivariate analysis was conducted using logistic regression and odds ratios (ORs) with standard errors to determine predictive factors. Out of 539 patients, 100 patients (19%) experienced 1 complication, and 12 patients (2%) experienced 2 or more complications. An overall lower rate of complications was seen in patients on therapeutic anticoagulation (OR: 0.17,  $P < .001$ ) or on antiplatelet agents (OR: 0.47,  $P = .02$ ). No patients on therapeutic anticoagulation developed venous thromboembolism (VTE; 0%). Right-sided port insertion was associated with decreased rates of infection (OR: 0.44,  $P = .04$ ). Insertion as inpatient was associated with an increased risk for mechanical failure (OR: 4.60,  $P < .01$ ). This analysis identified multiple predictive factors that can potentially put patients at a higher risk of experiencing complications following port insertion. Our data show lower rates of VTE for patients on anticoagulation or antiplatelet therapy. Further analysis is also necessary to

determine why port insertion as an inpatient places patients at a higher risk of complications. This study highlights the risks associated with port placement and prompts the clinician to have an informed discussion with the patient weighing the risks and benefits.

## You may also be interested in...

Complications of totally implantable central venous port system insertion  
Arm placed implantable port insertion technique  
Implantable port thrombosis rates in cancer patients

### Reference:

Skelton, W.P. 4th., Franke, A.J., Welniak, S., Bosse, R.C., Ayoub, F., Murphy, M. and Starr, J.S. (2019) Investigation of Complications Following Port Insertion in a Cancer Patient Population: A Retrospective Analysis. *Clinical Medicine Insights. Oncology*. April 24th. doi: 10.1177/1179554919844770. eCollection 2019.

