



“The purpose of this study was to determine the incidence and risk factors of infections associated with implantable venous access ports (IVAPs).” Shim et al (2014).

Reference:

Shim, J., Seo, T.S., Song, M.G., Cha, I.H., Kim, J.S., Choi, C.W., Seo, J.H. and Oh, S.C. (2014) Incidence and risk factors of infectious complications related to implantable venous-access ports. Korean Journal of Radiology. 15(4), p.494-500.

Incidence and risk factors of infectious complications related to implantable ports
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Abstract:

OBJECTIVE: The purpose of this study was to determine the incidence and risk factors of infections associated with implantable venous access ports (IVAPs).

MATERIALS AND METHODS: From August 2003 through November 2011, 1747 IVAPs were placed in our interventional radiology suite. One hundred forty four IVAPs were inserted in patients with hematologic malignancy and 1603 IVAPs in patients with solid tumors. Among them, 40 ports (23 women and 17 men; mean age, 57.1 years; range, 13-83) were removed to treat port-related infections. We evaluated the incidence of port-related infection, patient

characteristics, bacteriologic data, and patient progress. Univariable analyses (t test, chi-square test, and Fisher's exact test) and multiple logistic regression analyses were used to determine the risk factors for IVAP related infection.

RESULTS: Overall, 40 (2.3%) of 1747 ports were removed for symptoms of infection with an incidence rate of 0.067 events/1000 catheter-days. According to the univariable study, the incidences of infection were seemingly higher in the patients who received the procedure during inpatient treatment ($p = 0.016$), the patients with hematologic malignancy ($p = 0.041$), and the patients receiving palliative chemotherapy ($p = 0.022$). From the multiple binary logistic regression, the adjusted odds ratios of infection in patients with hematologic malignancies and those receiving palliative chemotherapy were 7.769 ($p = 0.001$) and 4.863 ($p = 0.003$), respectively. Microorganisms were isolated from 26 (65%) blood samples, and two of the most causative organisms were found to be *Staphylococcus* ($n = 10$) and *Candida* species ($n = 7$).

CONCLUSION: The underlying hematologic malignancy and the state of receiving palliative chemotherapy were the independent risk factors of IVAP-related infection.

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