To examine whether the real-time ultrasound-guided venipuncture for implantable venous port placement is safer than the traditional venipuncture” Yıldırım et al (2018).

Abstract:

AIM: To examine whether the real-time ultrasound-guided venipuncture for implantable venous port placement is safer than the traditional venipuncture.

METHODS: The study analyzed the results of 2153 venous ports placed consecutively from January 2009 to January 2016. A total of 922 patients in group 1 and 1231 patients in group 2 were admitted with venous port placed using the traditional landmark subclavian approach and real-time ultrasound-guided axillary approach, respectively. Sociodemographic characteristics of patients, early (pneumothorax, pinch-off syndrome, arterial puncture, hematoma, and malposition arrhythmia) and late (deep vein thrombosis, obstruction, infection, erosion-dehiscence, and rotation of the port chamber) complications and the association of these complications with the implantation method were evaluated.

RESULTS: There were no significant differences in the sociodemographic characteristics of the patients between the two groups. The overall and early complications in group 2 were significantly lower than those in group 1. Pinch-off syndrome only developed in group 1. Seven patients and two patients had pneumothorax in groups 1 and 2, respectively. Puncture number was significantly associated with the development of the overall complications.
CONCLUSION: The ultrasound-guided axillary approach may be preferred as a method to reduce the risk of both early and late complications. Large, randomized, controlled prospective trials will be helpful in determining a safer implantable venous port implantation technique.

Reference: