

**Abstract:**

Blood sampling via heparin-locked central venous catheter, including coagulation tests, is possible in accordance with the Clinical & Laboratory Standards Institute guidelines. However, differences exist between the test values of samples obtained from central venous catheter and those obtained from peripheral veins, even the guidelines are followed. To compare the coagulation time between blood samples from the heparin-locked central venous catheter and peripheral veins. In total, 72 hospitalized patients using heparin-locked Hickman catheters were enrolled. Blood samples for coagulation testing were simultaneously obtained via the peripheral veins and heparin-locked Hickman catheters. For sampling from the catheters, 0.9% sodium chloride flushing was performed and 10 or 23 ml of blood was discarded prior to collecting the coagulation test samples. Correlation, Bland-Altman plot, covariate, and regression analysis were performed for data analyses. Despite following the guidelines, the activated partial thromboplastin time test values differed. In the 10ml of blood discard group, a correlation coefficient of 0.378 and a mean bias of 6.46s were determined, while in the 23ml blood discard group, a correlation coefficient of 0.80 and a mean bias of 2.518s were determined. Therefore, the volume of blood discarded from the heparin-locked Hickman catheters may affect the activated partial thromboplastin time test values.

**Reference:**

Jeon, M., Han, A., Kang, H., Lee, K.H., Lee, J.H. and Lee, J.H. (2020) A comparison of coagulation test results from heparinized central venous catheter and venipuncture. *Blood Coagulation & Fibrinolysis*. 31(2), p.145-151. doi: 10.1097/MBC.0000000000000890.