



The effects of different concentrations of heparin and different types of catheter lock solutions are controversial. Therefore, this study aimed to compare the efficacy and safety of sodium citrate and sodium heparin catheter lock solutions” Huang et al (2019).

Abstract:

Objective: Use of a catheter lock solution plays a decisive role in vascular access. The effects of different concentrations of heparin and different types of catheter lock solutions are controversial. Therefore, this study aimed to compare the efficacy and safety of sodium citrate and sodium heparin catheter lock solutions.

Methods: A total of 120 patients were divided into four groups (30 patients per group) according to the use of catheter lock solution as follows: 6250 U/mL sodium heparin, 5000 U/mL sodium heparin, 2500 U/mL sodium heparin, and 4% sodium citrate. Coagulation function and the incidence of catheter occlusion, hemorrhage, and catheter-related infections were recorded.

Results: The different catheter lock solutions were significantly related to conduit blockage, hemorrhage, infection, and leakage levels. In the 4% sodium citrate group, the odds ratio was 0.688 for conduit blockage (95% confidence interval [CI], 0.206–2.297), 0.286 for hemorrhage (95% CI, 0.091–0.899), 0.266 for infection (95% CI, 0.073–0.964), and 0.416 for leakage (95% CI, 0.141–1.225) compared with the 6250 U/mL sodium heparin.

Conclusions: The solution 4% sodium citrate can effectively reduce the risk of catheter obstruction, bleeding, infection, and leakage better than sodium heparin in patients with long-term intravenous indwelling catheters.

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Reference:

Huang, H.M., Jiang, X., Meng, L.B., Di, C.Y., Guo, P., Qiu, Y., Dai, Y.L., Lv, X.Q. and Shi, C.J. (2019) Reducing catheter-associated complications using 4% sodium citrate versus sodium heparin as a catheter lock solution. *The Journal of International Medical Research*. July 15th. doi: 10.1177/0300060519859143. .

