The results of this study showed that the use of saline lock in the intervention group compared to the control group, in which saline lock was not used, can have a significant impact on reducing the incidence of phlebitis and its degree” Eghbali-Babadi et al (2015).

Reference:


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Abstract:

BACKGROUND: Despite advances in the field of intravenous therapy, phlebitis is still a common complication of peripheral venous catheter and finding an appropriate solution to prevent and reduce the incidence of this complication remains challenging. One of the methods used in reducing the incidence of phlebitis is the use of saline lock, which is forgotten in most hospitals. Therefore, this study aimed to evaluate its impact on the incidence and severity of phlebitis.

MATERIALS AND METHODS: In a single-blind (the researcher) clinical trial, 88 patients with
peripheral venous catheter admitted in cardiac care units in selected hospitals of Isfahan University of Medical Sciences, Iran, were selected through convenient sampling method. They were randomly divided into two groups of intervention and control groups using random number table. The intervention group received 3 ml of 0.9% normal saline sterilized before and after each intravenous drug or every 12 h. However, in the control group, the intravenous drugs were given as routine and saline lock was not used. The evaluation of intravenous catheter regarding the incidence of phlebitis and its degrees using Jackson’s Visual Infusion Phlebitis Scale was performed 6 times within 72 h (every 12 h). Results were evaluated by SPSS software using descriptive statistics, Chi-square test, t-test, and Mann-Whitney test.

RESULTS: Results showed that there was a statistically significant difference between the two groups regarding the degree of phlebitis (P = 0.003). The percentage of phlebitis incidence in the control group was 88.6% and in the intervention group was 43.2%. There was a statistically significant difference between the two groups (P < 0.001). The risk of incidence of phlebitis in the group without saline lock (control), compared to the intervention group, was 10.3 times greater (CI = 95%). The incidence of phlebitis in both groups increased with increase in the duration of catheter placement.

CONCLUSIONS: The results of this study showed that the use of saline lock in the intervention group compared to the control group, in which saline lock was not used, can have a significant impact on reducing the incidence of phlebitis and its degree.

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