Surveillance of short peripheral venous catheters identifies adverse events

Surveillance of adverse events associated to the use of short peripheral venous catheters (SPVC) is an indicator of quality of service. The objective was to report the incidence and risk factors associated to adverse events in SPVC” Buenfil-Vargas et al (2015).

Abstract:
BACKGROUND: Surveillance of adverse events associated to the use of short peripheral venous catheters (SPVC) is an indicator of quality of service. The objective was to report the incidence and risk factors associated to adverse events in SPVC.

METHODS: Prospective cohort study. All patients with a SPVC for more than 48 hours were included. The outcome variables were dysfunction, chemical phlebitis and bacterial phlebitis. The data registered were age, sex, underlying diseases, nutritional status, site of placement, skin condition, administered intravenous fluids, and catheter dressing. Regarding statistical analysis, incidence rate for each adverse event was calculated per 100 catheters and per 1000 catheter-days. Univariate and multivariate analysis of risk factors were performed.

RESULTS: 410 catheters were analyzed. Median of SPVC use was of three days. There was no evidence of infectious complications: 47 (11.4 %) presented chemical phlebitis and 231 (56.3 %) mechanical malfunction; the incidence rate was 35.6 and 175 per 1000 catheter-days, respectively. In the multivariate analysis, the risk factors associated to chemical phlebitis were skin lesions (p = 0.001, RR 3.479), and additional dressing use (p = 0.007, RR 4.025); for mechanical malfunction the only risk factor was the administration of intravenous chemotherapy (p = 0.026, RR 4.293).

CONCLUSIONS: The malfunction incidence rate was high; in consequence, the catheter was removed before 96 hours of use. This could explain the absence of infectious complications.

Reference:

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