To explore the preventive effect of applying hot compress with Chinese herbal salt packets (CHSP) to puncture vessels under aseptic conditions during peripherally inserted central catheter (PICC) on postoperative phlebitis" Wu et al (2018).

Abstract:
OBJECTIVE: To explore the preventive effect of applying hot compress with Chinese herbal salt packets (CHSP) to puncture vessels under aseptic conditions during peripherally inserted central catheter (PICC) on postoperative phlebitis.
METHODS: A total of 720 hospitalized patients undergoing first PICC were assigned to treatment and control groups (360 cases each group) according to a random number table. The control group received conventional catheterization and nursing care. The treatment group was first given hot compress with CHSP (which consisted of honeysuckle 30 g, Semen brassicae 30 g, Salvia miltiorrhiza 30 g, Angelica dahurica 30 g, Semen raphani 30 g, Evodia rutaecarpa 30 g, and coarse salt 20 g) on the punctured vessel under aseptic conditions for 5-10 min before conventional catheterization. The main efficacy indices were the vessel diameters before and during catheterization and the success rate of a single catheter, and the secondary efficacy index was the incidence of superficial phlebitis within 1 week after catheterization.
RESULTS: The vessel diameter during catheterization of the treatment group was remarkably increased compared with the control group [(7.96±0.42) mm vs. (4.39±0.54) mm, P<0.01]. The success rate of the single catheter of the treatment group was significantly higher than that of the control group [94.00% (329/350) vs. 73.72% (244/329), P<0.01]. The incidence of superficial phlebitis within 1 week after catheterization in the treatment group was lower than that in the control group (P=0.007). There was no adverse event with CHSP.
CONCLUSION: Hot compress with CHSP during PICC is applicable as it can effectively improve the success rate of a single catheter and reduce the incidence of superficial phlebitis after catheterization (Trial registration No. ChiCTR-ONC-17010498).

Reference: