Abstract:

Purpose: This study was conducted to examine the effect of local hot and cold applications on pain, anxiety level, insertion time, and vein evaluation before peripheral venous catheter (PVC) insertion.

Design: This randomized controlled trial was conducted with 90 patients who were hospitalized in the cardiology department of a university hospital.

Methods: All the data were collected using a patient information form, the Numeric Rating Scale, and Vein Assessment Scale for the assessment of pain and anxiety. Before PVC was inserted, the researcher applied a hot application or a cold application to the catheter insertion site for 1 minute.

Findings: Pain level was found to be significantly lower in the hot and cold application groups than the control group, and no difference was determined between the hot and cold application groups. The anxiety levels of the patients were significantly lower in the hot application group than the cold application and control groups (P < .05).

Conclusions: Applying local hot and cold application before inserting the PVC reduced both pain and anxiety levels of the patients. However, hot application increased vein visibility and patient satisfaction and shortened the insertion time, whereas cold application decreased vein visibility, prolonged the insertion time, and decreased patient satisfaction.

Reference: