
Abstract:

The purpose of this study was to compare a variety of local anesthetic agents before starting an intravenous (IV) device to determine which method is the most comfortable for patients. Using a randomized, double-blind, placebo-controlled, pretest-posttest experimental design, the study compared 5 treatment groups (anesthetic spray, placebo spray, anesthetic intradermal injection, placebo intradermal injection, and a control group with no local anesthetic agent) in 84 emergency department patients. Pain was measured with a visual analog scale before and after the application of the local anesthetic agents and after IV insertion. Pain was significantly higher in the anesthetic intradermal injection group 1 minute after anesthetic application compared with the other treatment groups. Pain ratings 3 minutes after IV insertion were found to be similar for the 5 treatment groups. These study results do not support the use of intradermal anesthetic agents before IV catheter insertion.