

Comparative study of sublingual buprenorphine, apotel and dexamethasone with apotel, dexamethasone and fentanyl on control of pain in lower limb fracture (femur and leg) Surgeries under Spinal Anesthesia

Abstract

Background: *one of the major challenges in surgery is pain control after surgery*

Aim: *Comparative study of sublingual buprenorphine, apotel and dexamethasone with apotel, dexamethasone and fentanyl on control of pain in lower limb fracture (femur and leg) Surgeries under Spinal Anesthesia*

Materials and Methods: *In this study, 130 patients who had fractures of the lower limb of the thigh and leg and underwent surgery were randomly divided into two groups of 65 people and were included in the study. In the first group, patients received Apotel, dexamethasone, and sublingual buprenorphine, and in the second group, they received Apotel, dexamethasone, and fentanyl. VAS score, nausea, vomiting, sedation and the need for painkillers were evaluated at 2, 6, 12 and 24 hours after the operation. All the collected data were entered into SPSS v25 statistical analysis program and analyzed using descriptive and analytical statistical methods.*

Results: *The overall mean age of the patients was 45.87 ± 18.73 years. 97 patients (74.6%) were male. There was no significant difference between the patients of the two groups in terms of age and sex. The numerical scale of pain intensity measurement based on VAS in the group of patients receiving Apotel, dexamethasone and fentanyl was significantly lower than the group receiving Apotel, dexamethasone and buprenorphine in all stages of measurement. The percentage of pain reduction during 24 hours was higher in the buprenorphine group (45.8) than in the fentanyl group (32.5). . In terms of sedation score and nausea and vomiting, there was no statistical difference between the two groups.*

Conclusion: *The results of the present study showed that although the VAS pain score was lower in all hours studied in the fentanyl group compared to the buprenorphine group, the VAS reduction trend in the group receiving sublingual buprenorphine also had a downward trend. used sublingual buprenorphine as an acceptable, low-cost and easy-to-administer drug in controlling acute pain after surgery.*

Keywords: *Buprenorphine, pain, fentanyl, lower extremity fracture*