

A comparative study of the efficacy of Remifentanil with a combination of Apotel and Pethidine in controlling labor pain

Abstract

Background: Pain is one of the most important causes of unlucky maternal mothers to have a normal delivery. Pain relief is one of the main parts of midwifery science

Aim: The aim of this study was to compare the effectiveness of Remifentanil with combination of Apotel and Pethidine in controlling labor pain.

Materials and Methods: Among the first pregnant women referred to Alavi Hospital in Ardabil, 100 pregnant women were divided into two groups A and B using block randomization method. Group A (50 cases) received intravenous Remifentanil injection at a dose of 0.05 µg / kg / min and group B (50 cases) received intravenous apotel injection at a dose of one gram and intramuscular injection of pethidine 25 mg / kg. Questionnaire including age, weight, midwifery history of pregnant woman, type of analgesia, fetal heart rate, duration of active phase of labor, duration and intervals of uterine contractions, neonatal Apgar score in the first and fifth minutes, pain score before and after analgesia and Medication side effects will be completed in each case. Patients' vital signs included (blood pressure, heart rate and respiration rate, before and after analgesia recorded and visual analog score based on VAS at 15, 30 and 60 minutes, as well as 2 and 4 hours after intervention.

Results: There was no statistically significant difference between the two groups in terms of age, gestational age, maternal and neonatal weight and education. There was no significant difference between patients in the treatment groups in the intensity of pain before the intervention, 15 minutes and 4 hours after the intervention, but at 30, 60 and 2 hours after the intervention, the pain intensity in the group receiving remifentanil was significantly less. Also the duration of uterine contractions, pain duration and after intervention systolic blood pressure

and respiratory rate between the groups were significant. There were no statistically significant differences between the two groups during the active phase of labor, the first and fifth minute Apgar scores of the newborn. and the vital signs of the mother.

Conclusion: *Overall, our study shows that intravenous remifentanil is a more acceptable and effective alternative to combination of intramuscular pethidine and intravenous Apotel for analgesia.*

Keywords: *Remifentanil - Pethidine – Apotel*