Comparison of analgesic effect of inhaling Entonox with and without dexamethasone in labor

Abstract

Background & Objective: Labor pain is often severe. Unrelieved labor pain can have an adverse effect on the physiologic status of women. Pain during labor is accompanied by fear, which is related to slower progress of labor. Accurate measurement and appropriate management of pain is a significant problem for attendant medical and nursing personnel. There are choices to be made during pregnancy about options available for pain relief in labor; each method has its own risks and benefits, with variations in effectiveness, availability and acceptability. The purpose of this study was to comparison of analgesic effect of inhaling Entonox with and without dexamethasone among women undergoing normal vaginal delivery.

Methods: In this clinical trial study, 90 women with term pregnancy were observed. In all of the cases, labor pains started spontaneously and had fetal and maternal indication for normal vaginal delivery. They were divided into two groups randomly. The first group received inhaled 50% nitrous oxide and placebo and the second group received the inhaled 50% nitrous oxide and 8 mg intramuscular Dexamethasone. Data of labor pain and outcome of delivery collected by means of questionnaires.

Results: Pain severity according to VAS and NRS score was significantly lower in patient received nitrous oxide and dexamethasone after 3 hours after intervention (P=0.0001).

There was not a significant difference in the duration of labor, number of uterine contractions and infant complications. Analysis of the maternal complications between two groups showed that none of investigated complications were significantly different between two groups unless SBP. Significant different was observed among the groups regarding Apgar in 1st and 5th minute between two groups. Analysis of the pooled risk differences showed that none of the side effects investigated were significantly different between two groups unless nausea and vomiting that was significantly higher in nitrous oxide users.

Conclusions: Use of nitrous oxide and dexamethasone has more beneficial effects for many parturient women compared to nitrous oxide.

Key words: Entonox, labor Pain, Dexamethasone