

## ***Pain intensity, labor duration and satisfaction of labor between anesthesia with fentanyl injection and anesthesia with water injection in women undergoing vaginal delivery***

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### ***Abstract***

***Background & Aim:*** One of the common reasons for selecting C-section by mothers is the fear of labor pain. Hence, many attempts have been made to reduce C-section cases and increase painless delivery. Therefore, this study aimed to compare the efficacy of anesthesia with fentanyl injection and anesthesia with water injection on pain intensity, labor duration and satisfaction with labor in women undergoing vaginal delivery.

***Methods:*** In this clinical trial, 100 pregnant women in the first stage of labor were randomly divided into two groups of 50 patients undergoing water injection anesthesia and analgesia with fentanyl. Lower back pain was measured before and 10, 45 and 90 minutes after treatment in both groups. Data collection tools include demographic questionnaire, visual Analog scale (VAS), and satisfaction questionnaire. Data were analyzed using SPSS20.

***Results:*** The mean age of participants in both groups of anesthesia with fentanyl injection and anesthesia with distilled water injection was 24.46 and 23.54 years, respectively. Satisfaction with anesthesia was significantly higher in distilled water anesthesia group than fentanyl anesthesia group ( $P = 0.006$ ). Pain intensity in minute 45 was significantly lower in the group with distilled water injection than fentanyl anesthesia group ( $P < 0.05$ ). Moreover, labor duration was significantly lower in the group with distilled water injection than fentanyl anesthesia group after intervention ( $P < 0.05$ ).

**Conclusion:** It seems that anesthesia with distilled water injection is more welcomed than fentanyl injection among women undergoing vaginal delivery. However, further investigation is needed in this regard.

**Keywords:** Pain intensity, labor duration, satisfaction with labor, fentanyl, distilled water