

Preoperative knowledge about spinal anesthesia on anxiety and pain in patients undergoing cesarean section

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Abstract

Background: Preoperative counseling is one for pregnant women help to improve the surgical outcome and also reduce the number of analgesics used. Though it is known that preoperative counseling is effective, there are limited studies to testify to its importance.

Objective: The present study was undertaken to observe the preoperative knowledge about spinal anesthesia on anxiety and pain in patients undergoing cesarean section.

Materials and methods: A total of 60 patients who were elected under CS anesthesia were part of the study after obtaining informed consent. After recording the baseline pain scores, depression, anxiety and stress scores, the participants were randomly grouped into control and intervention groups with 30 participants in each group. Preoperative counseling was offered to the participants of the intervention group. No counseling was offered to the participants of the control group. Post-surgical pain and depression, anxiety and stress scores were recorded in both groups. A visual analog scale was used to record the pain scores. Depression, anxiety and stress scores were recorded using DASS 42.

Results: There was no significant difference in the scores of depressions, anxiety and stress among the control and intervention group participants before the counseling. There was a significant decrease in the depression, anxiety and stress scores in the intervention group participants. Further, a significant decrease was observed in the pain scores also in the participants of the intervention group.

Conclusion: There was a significant decrease in the pain scores, depression, anxiety and stress scores after the surgery in the intervention group participants who underwent the preoperative counseling. The study recommends further detailed study in this area to recommend the implementation of preoperative counseling for the women undergoing cesarean section.

Keywords: Preoperative counseling, anxiety, stress, cesarean section

Introduction

Preoperative anxiety is most common in the patients scheduled for the surgeries. It was reported that about 60-80 percent of patients experience anxiety before the surgery ^[1]. The

anxiety of the patients has an adverse effect on the surgical procedures, outcome, and even the healing ^[2]. It was explained that negative psychological emotions like depression, anxiety, and stress are common in pregnant women who opted for the cesarean section ^[3]. Excessive anxiety experienced by the mother will adversely affect the health of the newborn baby ^[4]. The administration of effective analgesics helps the recovery of the mother and also improves the quality of life after the surgery ^[5]. Further, recovering of the mother is needed so that she can take care of the feeding of the newborn child ^[5]. Preoperative counseling is one for pregnant women help to improve the surgical outcome and also reduce the number of analgesics used ^[6]. Further, the patients and their relatives will also be satisfied with the outcome of preoperative counseling. Though it is known that preoperative counseling is effective, there are limited studies to testify to its importance. Hence, the present study was undertaken to observe the preoperative knowledge about spinal anesthesia on anxiety and pain in patients undergoing cesarean section.

Materials and methods

Study design

Observational study.

Study participants

A total of 60 patients who were elected under CS anesthesia were part of the study after obtaining informed consent. Unwilling participants and complicated pregnancies were excluded from the study. Patients with any severe complications were also excluded from the study.

Methods

After the recruitment, patients underwent a thorough physical examination. Then the demographic data was obtained followed by detailed data collection. After recording the baseline depression, anxiety and stress scores, the participants were randomly grouped into control and intervention groups with 30 participants in each group. Preoperative counseling was offered to the participants of the intervention group. No counseling was offered to the participants of the control group. Post-surgical pain and depression, anxiety, and stress scores were recorded in both groups. A visual analog scale was used to record the pain scores. Depression, anxiety, and stress scores were recorded using DASS 42. The counseling comprised of details about the spinal anesthesia procedure and surgical procedures and safety measures taken during the procedures. Also, a handout about the details was given to the participants in the local language.

Ethical considerations

The study was approved by the institutional human ethical committee. Voluntary informed consent was obtained from all the participants.

Statistical analysis

Data was analyzed using SPSS 20.0. student t-test was administered to observe the significance of the difference between the groups.

Results

Table no 1 presents the depression, anxiety, stress, and pain score of the participants before the counseling. There was no significant difference in the scores of depressions, anxiety, and stress among the control and intervention group participants before the counseling. Table no 2 presents the depression, anxiety, stress, and pain score of the participants after the counseling. There was a significant decrease in the depression, anxiety, and stress scores in the intervention group participants. Further, a significant decrease was observed in the pain scores also in the participants of the intervention group.

Table 1: Depression, anxiety, stress, and pain score in the participants before the counseling

Parameter	Control group (N=30)	Intervention group (N=30)	P value
Depression	27±6	25±4	0.132
Anxiety	17±4	16±2	0.2256
Stress	24±5	22±3	0.0653

Data were expressed as mean and SD.

Table 2: Depression, anxiety, stress and pain score in the participants after the counseling

Parameter	Control group (N=30)	Intervention group (N=30)	P value
Depression	27±6	19±4	<0.0001***
Anxiety	17±4	14±3	0.0017**
Stress	24±5	18±4	<0.0001***
Pain score	8±1	4±1	<0.0001***

Data were expressed as mean and SD. **P<0.01 is significant. ***P<0.001 is significant.

Discussion

Though it is known that preoperative counseling is effective, there are limited studies to testify to its importance. Hence, the present study was undertaken to observe the preoperative knowledge about spinal anesthesia on anxiety and pain in patients undergoing cesarean section. There was no significant difference in the scores of depressions, anxiety, and stress among the control and intervention group participants before the counseling. There was a significant decrease in the depression, anxiety, and stress scores in the intervention group participants. Further, a significant decrease was observed in the pain scores also in the participants of the intervention group. Earlier studies reported that preoperative counseling has a significant role in postoperative pain [7]. The individual undergoing the cesarean section undergoes severe anxiety and that has to be managed [8]. The counseling about the administration of the anesthesia and other procedures of the surgery has a greater impact on the surgical outcome and post-surgical pain [9]. Earlier studies suggested that it is always beneficial to prepare the patient about the knowledge about the anesthesia and the surgical procedures preferably by the counseling as well as the handouts. When the patient is aware of the procedures that have to be performed on him, he will give maximum cooperation so that the outcome of the surgery will be very good and also post-operative healing will be sped up [10]. The present study results support earlier studies as it was observed a significant decline in the pain and negative emotions followed the counseling.

Conclusion

There was a significant decrease in the pain scores, depression, anxiety, and stress scores after the surgery in the intervention group participants who underwent the preoperative counseling. The study recommends further detailed study in this area to recommend the

implementation of preoperative counseling for the women undergoing cesarean section.

Conflicts of interest: None declared

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