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Research Article

**ASSESSMENT OF TYPICAL DIFFICULTIES RELATED WITH  
THE CESAREAN SECTION UNDER SPINAL ANESTHESIA IN  
ATTEMPT TO LESSEN THE ANXIETY AND DISTRESS OF  
PATIENTS****<sup>1</sup>Sajid Ali, <sup>1</sup>Muhammad Ahsan Bashir, <sup>2</sup>Dr Muhammad Imran**  
<sup>1</sup>Mayo Hospital Lahore, <sup>2</sup>Rawalpindi Medical College.**Article Received:** October 2020**Accepted:** November 2020**Published:** December 2020**Abstract:**

**Objective:** To distinguish basic protests related with cesarean segment under spinal sedation and oversee them, to diminish the nervousness and pain level of the patients.

**Methods:** Cross sectional observational examination was directed at Department of Anesthesia, Lahore General Hospital Lahore from May 2019 to April 2020. Hundred patients matured from 20-36 years went through elective cesarean area under spinal sedation. Patients got nothing per oral for 6 hours. Metoclopramide and Ranitidine IV were given half-hour before a medical procedure. Colloid 10ml/kg was given IV before enlistment of spinal sedation. All patients were put in sit-chime position and under aseptic conditions lumbar cut was done at L3-L4 or L4-L5 interspaces with 25 check pencil guide needle toward manage nearby sedative more than 20 seconds gradually. Oxygen 4liters/minute was directed through a Hudson veil. All the patients were requested any protest during cesarean area under spinal sedation. In excess of five regular protests were thought of and comparative grievances which are under five were excluded from the examination.

**Results:** Out of 100 patients, 67% patients had no bad things to say and 33% patients introduced regular grievances. Instinctive torment or stomach distress was 19%, shuddering 11%, sickness and vomiting 10 percentage, epigastria torment 6%, spinal pain 5% and migraine 5%.

**Conclusion:** Spinal sedation is an incredible method for cesarean area in dominant part of patients. Patients have different grumblings during spinal sedation, which may build tension and trouble levels in patients.

**Keywords:** Assess and diagnose typical difficulties, cesarean section under spinal anesthesia.

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**INTRODUCTION:**

Over 20% of deliveries require a caesarean section for the birth of the baby. Caesarean deliveries are performed as an elective or an emergency procedure under General, Spinal, Epidural or combined spinal epidural anesthesia. The majority of caesarean sections are done under spinal anesthesia now [1]. Spinal Anesthesia is preferred for caesarean section because it is simple to perform and is economical. It produces rapid onset of anesthesia [2], patients remain awake and alert, associated with less nausea and vomiting, minimal neonatal depression, less incidence of aspiration pneumonitis and adequate muscle relaxation. Spinal anesthesia produces a fixed duration of anesthesia and some associated complications include hypotension, shivering, visceral pain or discomfort, nausea, vomiting, and headache during or after the procedure. Sometimes spinal anesthesia is converted into general anesthesia [3]. Major maternal complaints during caesarean section under spinal anesthesia were visceral pain or discomfort. Visceral pain, nausea, vomiting, shivering and other complaints become very severe, therefore sometimes may require general anesthesia if the patients' discomfort cannot be controlled. The conversion rate from spinal to general anesthesia is 0.7-2.8% and even higher in emergency caesarean section that is 4.9%. Visceral pain is dull, poorly localized and the visceral sensation is described as heaviness, squeezing or unpleasant feeling associated with nausea and vomiting [4]. Sometimes it is associated with exteriorization of the uterus. Intraoperative nausea and vomiting is uncomfortable to the patients and may cause protrusion of abdominal viscera, rendering surgery more difficult and increasing the risk of visceral injury. Patient feels a lot of anxiety and distress during spinal anesthesia. Anxiety and distress level of anesthetist is also very high during spinal anesthesia due to various complaints of the patients [5]. The purpose of this study was to identify the common complaints associated with caesarean section under spinal anesthesia and manage them, in order to decrease the anxiety and distress level of the patients.

**METHODOLOGY:**

Cross-sectional observational examination was directed at Department of Anesthesia, Lahore General Hospital, Lahore from May 2019 to April 2020. Convenience sampling was done and 100 patients were included. All the patients belonged to American Society of Anesthesiology (ASA) grade I and II, aged from 20 to 36 years, undergoing elective caesarean section under spinal anesthesia (Table I). Patients were asked for the type of anesthesia preoperatively. Thirty-six patients agreed for general anesthesia, 40 patients for spinal anesthesia and 24 patients left the decision

on attending anesthetist. Thirty-six patients who initially agreed for general anesthesia, were explained the advantages of spinal anesthesia over general anesthesia. After knowing the benefits of spinal anesthesia they agreed for spinal anesthesia. Exclusion criteria were refusal for spinal anesthesia, pregnancy-induced hypertension, known fetal abnormality, allergy to bupivacaine, bleeding disorder and infection at the site of injection. Each patient had fasting for six hours and Metoclopramide and Ranitidine IV were administered half hour before surgery. Heart rate, blood pressure and oxygen saturation were recorded. Intravenous line was maintained. Colloid 10ml/kg was given IV before induction of spinal anesthesia. Each patient was placed in sitting position and under aseptic conditions lumbar puncture was done at L3-L4 or L4-L5 intervertebral spaces with 25-gauge pencil point needle (Sprotte) and local anesthetic Bupivacaine 0.75% was administered over 20 seconds. The dose of Bupivacaine was adjusted according to the height of the patient that is 1.6 ml for women <150 centimeters and 1.8 ml for women >150 centimeters. After spinal anesthesia, the patients were turned to supine position with lateral tilt immediately to avoid aorto-caval compression. The spread of analgesia was assessed by pinprick after spinal anesthesia while motor block was assessed by using the Bromage scale. Oxygen 4 liters/minute was administered via a Hudson mask. Pulse rate, Blood pressure and oxygen saturation were recorded after an interval of 2 minutes for the first 15 minutes and then at 5 minutes' interval throughout the surgery. Hypotension, defined as decrease in systolic pressure less than 90 mmHg or decrease of blood pressure 20% from base line, was treated with boluses of IV Ephedrine. Intra-operative pain was treated with IV Nalbuphine 5-10mg, Midazolam 2-5mg and Ketamine 25-50mg. Nausea or vomiting with IV Metoclopramide 10mg after excluding intraoperative hypotension. Intraoperative shivering was treated by Tramadol 25-50mg and epigastric pain with IV Ranitidine 50mg. Headache was managed by reassurance and Midazolam (Table II). Intensity of pain was assessed by numerical pain rating scale; 1-3 for mild pain, 4-6 for moderate pain and 7-10 for severe pain. The intensity of intraoperative shivering was graded as mild with no visible muscle activity, moderate with more than one muscle group and no generalized shaking and severe with violent muscle activity that involves the whole body. All the patients were asked for any complaint during caesarean section under spinal anesthesia. Similar complaints which were similar and more than 5 in numbers were considered as common complaints. Complaints less than 5 in numbers were not included in this study. Statistical analyses were performed by using Statistical

package for social sciences (SPSS) version14; quantitative variables were expressed as mean  $\pm$  SD

(standard deviation) while qualitative variables were expressed as percentage.

**Table 1.**

Level of spinal space at which Bupivacaine was given and the dermatome level achieved in patients (n=100) with spinal anesthesia

**Characteristics Number of patient's n (%)**

ASA classification 1 88(88)  
11 12(12)  
Spinal space L3-4 78(78)  
L4-5 22(22)  
Dose Bupivacaine (ml) 1.6 21(21)  
1.8 79(79)  
Height achieved (dermatome level) T4 81(81)  
T6 19(19)

**Table 2.**

Treatment given to patients with common complaints during spinal anesthesia

**Drugs Number of patients n (%)**

Ephedrine 6(6)  
Midazolam & Nalbuphine 6(6)  
Ranitidine 5(5)  
Nalbuphine 5(5)  
Midazolam, Nalbuphine & Ketamine 4(4)  
Tramadol 3(3)  
Metoclopramide 2(2)  
Midazolam, Nalbuphine & Tramadol 1(1)  
Nalbuphine & Ephedrine 1(1)

**Table 3.**

Common complaints of patients (n=100) during caesarean section with spinal anesthesia

**Common complaint Number of Frequency**

**Patients (n=100) n (%)**

Visceral pain or abdominal Mild pain 7(7)  
Discomfort n=19 Moderate pain 8(8)  
Severe pain 4(4)  
Epigastric pain n=6 Mild pain 4(4)  
Moderate pain 2(2)  
Severe pain 0(0)  
Nausea & vomiting n=10 Nausea 7(7)  
Vomiting 3(3)  
Shivering n=11 Mild 7(7)  
Moderate 4(4)  
Backache n=5 Backache 5(5)  
Headache n=5 Headache 5(5)

**RESULTS:**

Number of patients included in this study was 100. The mean age of the patients was  $27.09 \pm 5.8$  years and duration of caesarean section was  $53.79 \pm 5.8$  minutes. None of the patients had any complaint during caesarean section under spinal anesthesia before delivery of fetus. Patients who had no complaint were 67% whereas 33% patients had complaints during

spinal anesthesia. There was high incidence of complaints found in patients convinced for spinal anesthesia. Out of 33% patients 20% were those who were convinced for spinal anesthesia. Visceral pain or abdominal discomfort was present in 19%, Shivering was present in 11%, Nausea and vomiting was experienced by 10%, epigastric pain in 6% of the patients. Patients complaining of backache were 5%

and headache was present in 5% (Table 3).

### DISCUSSION:

Recent trends of obstetric anesthesia show increased popularity of regional anesthesia. General anesthesia is associated with high mortality rates as compared to regional anesthesia. Locally anesthesia combined with narcotics to produces adequate depth of anesthesia. Visceral pains a common problem in caesarian section under spinal anesthesia [6]. The visceral pain is dull poorly localized unpleasant feeling often accompanied by nausea and vomiting, exteriorization of uterus after delivery and manipulation of abdominal viscera. Our results showed high incidence of visceral pain that was 19% [7]. Three patients out of 19 felt abdominal discomfort even when abdomen was closed and pressure just applied on the stitched wound. Bogra et al found no visceral pain in high doses of anaesthetic agent, 'Bupivacaine' is common for spi-Bupivacaine, however, visceral pain was not fully abolished with low doses of Bupivacaine [8]. Choi et al showed high incidence of visceral pain that was 35% with low dose and 20% with high dose Bupivacaine. Pedersen et al reported visceral pain in 31.6% which is high as compared to our study Nausea and vomiting are troublesome side effects encountered during spinal anesthesia for caesarian section. Possible etiology includes hypotension and peritoneal manipulation [9]. The abrupt diaphragmatic contraction present in emesis was uncomfortable to the patients and might cause protrusion of abdominal viscera rendering surgery more difficult. Incidence of nausea and vomiting in our study was 10% and 8 patients developed nausea and vomiting probably due to hypotension. They did not complain for nausea and vomiting once their blood pressure came to base line level. The remaining two developed nausea and vomiting in the absence of hypotension Shahriri et al. showed that intraoperative frequency of nausea vomiting treated with Midazolam was 15% and with Metoclopramide was 52% under spinal anesthesia. This is very high as compared to our study [10].

### CONCLUSION:

Spinal anaesthesia is an excellent technique for caesarean section. Patients have various complaints during spinal anaesthesia which may increase anxiety and distress level in patients Patients convinced for spinal anaesthesia had more complaints as compared to those who were willing for spinal anesthesia. Those patients who are reluctant for spinal anaesthesia should be considered for general anaesthesia.

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