



## EFFECT OF PREOPERATIVE ADVICE ON ANXIETY AND INTRAOPERATIVE CO-OPERATION IN PRIMI MOTHERS UNDERGOING EMERGENCY CAESAREAN SECTION

### Anesthesiology

|                                  |                                                                                                                                    |
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### ABSTRACT

**Introduction:** Pregnancy and Surgery are the two most stressful conditions patients can undergo ,especially when it is for the first time .An Uncooperative patient or a highly anxious patient may need repeated attempts of successful regional anaesthesia. This Study was done to study the effect of preoperative advice on such patients and its effect on patients cooperation .

**Aim of the study:** The objectives of the study is to assess the degree of anxiety in primi mothers posted for LSCS and to compare the intraoperative co operation between the group which received the advice and the group which did not.

**Methods and Materials:** This study is a prospective ,randomised, and observational study conducted in tertiary care hospital. 200 patients were selected and there were randomised into two groups of 100 each. In the preoperative advice group, patients will be well informed about the procedure, and method of anaesthesia in a elaborate manner. Both the group of patients will receive spinal anaesthesia in a standardised procedure. The parameters were observed using Covi anxiety scale and results were analysed.

**Results and Conclusion:** The results revealed that patient with better educational background had low level of anxiety on preoperative advice .In patient cooperation for spinal anaesthesia, patient in advice group cooperated well compared to patients in non advice group. So this study concludes that advice will have a great impact in patient's anxiety level and cooperation for spinal Anaesthesia .

### KEYWORDS

Caesarean Section, Preoperative Anxiety, Cooperation For Spinal Anaesthesia.

#### INTRODUCTION:

Pregnancy and Surgery are the two most stressful conditions patients can undergo, especially when it is for the first time. The major factors which influence the level anxiety will be the patients educational background and mental preparation before surgery. For an Anaesthesiologist, trying for regional anaesthesia, patient co operation is a major factor which decides the success of anaesthesia. An Uncooperative patient or a highly anxious patient may need repeated attempts of successful regional anaesthesia. This Study was done to study the effect of preoperative advice on such patients and its effect on patients cooperation.

#### AIM OF THE STUDY:

The aim and objectives of the study is to assess the degree of anxiety in primi mothers posted for LSCS and to compare the intraoperative co operation between the group ,which received the preoperative advice and the group which did not receive preoperative advice.

#### METHODS AND MATERIALS:

This study was conducted in a tertiary care hospital after getting institutions ethical committee approval. The design of the study is a prospective, randomised study. 200 patients were enrolled in this study and they were randomised into two groups of 100 each. The inclusion criteria will be patients with no previous surgical history, first pregnancy and caesarean section 3 and 4 category. (Table 1). Patients in labour pain ,mentally retarded patients, Deaf-mute mothers and caesarean section category 1 ,and 2 were excluded from this study. (Table 1)

**TABLE 1. (Caesrean Category)**

| Grade      | Definition (at time of decision to operate)                    |
|------------|----------------------------------------------------------------|
| Category 1 | Immediate threat to life of woman or fetus                     |
| Category 2 | Maternal or fetal compromise, not immediately life-threatening |
| Category 3 | Needing early delivery but no maternal or fetal compromise     |
| Category 4 | At a time to suit the woman and maternity team                 |

[Lucas et al, 2000]

**Table 1a. Categorization of urgency of Cesarean Section**

In the preoperative advice group ,patients will be well informed about the procedure, and method of anaesthesia in a elaborate manner. Both the group of patients will receive spinal anaesthesia in a same manner and standardised procedure.

Patients anxiety level will by assessed by Covi Anxiety Scale, based on simple 3 point clinician rating scale for assessing the patient anxiety in terms of patient's verbal response ,behaviour, and somatic symptoms.

#### Covi Anxiety Scale

Rate each of the following according to the degrees of severity Score below.

1: Not at all, 2: Some what, 3: Moderately, 4: Considerably, 5: Very Much

**Level 1: Verbal report** -feels nervous, shaky, jittery ,suddenly fearful or scared for no reason, tense, has to avoid certain situations, places or things because of being frightened.

**Level 2: Behaviour ....** Looks scared, shaking ,apprehensive, restless, jittery

**Level 3: Somatic symptoms of anxiety ,....** Trembling ,sweating rapid heartbeat, breathlessness, hot or cold spells, restless sleep, disturbance in stomach, lump in throat, having to go to bathroom frequently.

**Score of 3 -7: Mild Anxious, Score 8-11: Moderate Anxious, Score 12-15: Severe Anxious**

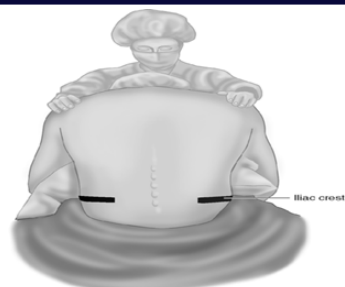
#### Preoperative Advice

Preoperative advice will be given in the language acceptable to the patient in the preoperative visit .The following advice will be given to the patient.

1. Introduction of the anaesthetist and explanation of the spinal anaesthesia in simple ,understandable manner.
2. Then advice regarding shifting the patient to the operation theatre and need of attaching the monitors.
3. Then the position for spinal anaesthesia either lateral or sitting will be explained to the patient with use of pictures. (Fig 1,2)



**FIG 1.**



Source: Butterworth JF, Mackay DC, Wessnick JD: Morgan & Mikhail's Clinical Anesthesiology, 8th Edition. www.accessmedicine.com  
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FIG 2.

- Advice regarding painting of the back using antiseptic solutions and spinal injection using needle. Patient will be emphasized the importance of needle prick deflexion during spinal anaesthesia.
- Then explanation of spinal anaesthesia blockade after giving the drug will be described by ascending numbness, heaviness of legs and loss of sensation upto supraumbilical level.
- Advice regarding pressure or full stretch during surgery will be explained. And finally assurance for pain free intraoperative period will be given.

The study starts initially by assessing the anxiety level using Covi Scale.

Then one group will receive preoperative advice and other group will not receive any advice.

Both group of mothers will be shifted to the operation theatre and positioned for spinal anaesthesia. Here cooperation of patient was assessed with three parameters, well co operated, needs assurance, and needs manual effort. Then spinal anaesthesia was performed using 25 G Quinke Needle and after successful spinal anaesthesia patient was repositioned to supine. The response to spinal anaesthesia was assessed using three parameters like coherent, confused, and not able to answer. After a desired level of blockade upto T6, surgery was started. These results were analysed and tabulated.

#### OBSERVATION AND RESULTS:

The following parameters were analysed in advice given group and the group which didn't receive advice.

- Anxiety level in both group before shifting the patient to operation theatre.
- Level of Cooperation for spinal anaesthesia positioning.
- Response to spinal anaesthesia.

#### 1. Anxiety Level.

The first parameter, anxiety level in the both groups were analysed and it was correlated with the patient's education level and it is comparable in the both advice given group and advice not given group. (Fig3). Analysing the patients education level with anxiety level, it was found to be the higher education level, lower the anxiety score which was statistically significant (Fig 4, Table 2).

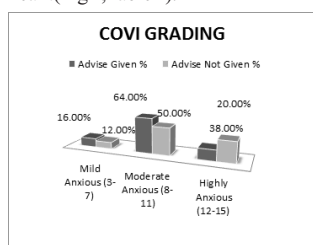


FIG3.

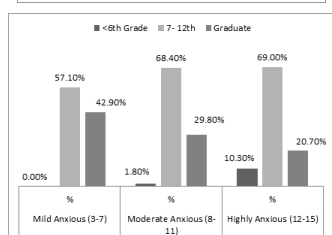


FIG4

TABLE 2. Patients education level with Anxiety score.

| Education  | Mild Anxious (3-7) |        | Moderate Anxious (8-11) |        | Highly Anxious (12-15) |        | Statistical inference                                      |
|------------|--------------------|--------|-------------------------|--------|------------------------|--------|------------------------------------------------------------|
|            | f                  | %      | f                       | %      | f                      | %      |                                                            |
| <6th Grade | 0                  | .0%    | 2                       | 1.8%   | 6                      | 10.3%  | X <sup>2</sup> =12.130<br>Df=4<br>.016<0.05<br>Significant |
| 7- 12th    | 16                 | 57.1%  | 78                      | 68.4%  | 40                     | 69.0%  |                                                            |
| Graduate   | 12                 | 42.9%  | 34                      | 29.8%  | 12                     | 20.7%  |                                                            |
| Total      | 28                 | 100.0% | 114                     | 100.0% | 58                     | 100.0% |                                                            |

#### 2.Positioning For Spinal Anaesthesia

The level of cooperation for positioning during spinal anaesthesia was analysed in the groups of where preoperative advice was given and in the group which didn't receive preoperative advice. There is marked difference in the cooperation rendered by the patients between the both groups with was statistically significant. (Fig 5). The patient who received preoperative advice cooperated well when compared to the other group which didn't receive advice. Also the patient who didn't receive preoperative advice needed more physical and oral assistance to position for spinal anaesthesia, which was tabulated and it is found to be statistically significant. (Table 3)

FIG 5.Cooperation during Spinal Anaesthesia

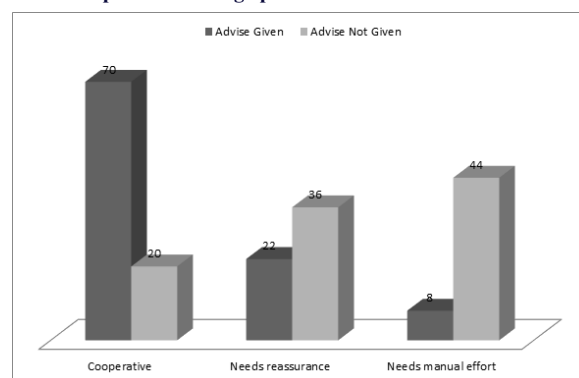


TABLE 3. Cooperation during Spinal Anaesthesia

| Positioning         | Advise Given |        | Advise Not Given |        | Statistical inference                                      |
|---------------------|--------------|--------|------------------|--------|------------------------------------------------------------|
|                     | f            | %      | f                | %      |                                                            |
| Cooperative         | 70           | 70.0%  | 20               | 20.0%  | X <sup>2</sup> =56.080<br>Df=2<br>.000<0.05<br>Significant |
| Needs reassurance   | 22           | 22.0%  | 36               | 36.0%  |                                                            |
| Needs manual effort | 8            | 8.0%   | 44               | 44.0%  |                                                            |
| Total               | 100          | 100.0% | 100              | 100.0% |                                                            |

#### 3.Response to Spinal Anaesthesia:

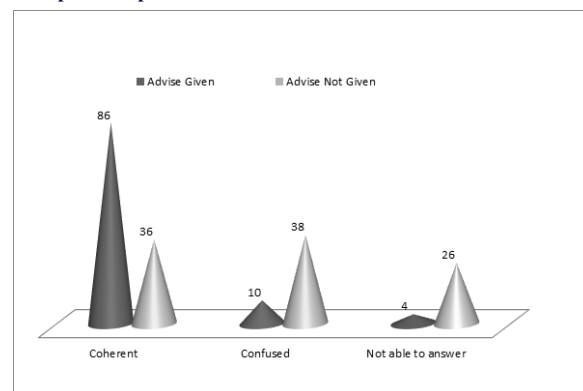


FIG 6.

The response to spinal Anaesthesia in the was analysed using these parameters i.e. Coherent, Confused and Not able to answer (Fig 6). In the advice given group, the majority of the patients were able to respond in a coherent manner. But in the group where the patients

didn't receive any preoperative advice were confused to the questions asked about the spinal anaesthesia response and most of the patients was not able to answer any questions. In the preoperative advice given group the number of patient who were confused or not able to answer was minimal when compared to the other group. Both these parameters were statically analysed and they were found to be significant.(Table 4).

**TABLE 4.response To Spinal Anaesthesia**

| Response           | Advise Given |               | Advise Not Given |               | Statistical inference                                             |
|--------------------|--------------|---------------|------------------|---------------|-------------------------------------------------------------------|
|                    | f            | %             | f                | %             |                                                                   |
| Coherent           | 86           | 86.0%         | 36               | 36.0%         | <b>X<sup>2</sup>=52.958 Df=2<br/>.000&lt;0.05<br/>Significant</b> |
| Confused           | 10           | 10.0%         | 38               | 38.0%         |                                                                   |
| Not able to answer | 4            | 4.0%          | 26               | 26.0%         |                                                                   |
| <b>Total</b>       | <b>100</b>   | <b>100.0%</b> | <b>100</b>       | <b>100.0%</b> |                                                                   |

#### DISCUSSION:

Pregnancy is one of the most stressful period a woman can undergo and to overcome this period she has to be prepared both mentally and physically. There are lot of factors which can influence the level of anxiety and stress during the antenatal period . Added to the others factors , caesarean section will have a definite impact on the anxiety level of a woman. To alleviate the fear, a good preoperative talk to the patients regarding the surgery ,anaesthesia can reduce the anxiety level and it will have a great impact in the conduct of anaesthesia as well as surgery. The aim of this study was to assess the anxiety level of the patients before caesarean section in two group of the patients, who received preoperative advice and who didn't receive any preoperative advice. On analysing the results ,it was well observed and proved that in the group were the patients receive preoperative advice had low levels of anxiety grade and they were able to cooperate well while performing spinal anaesthesia. Also the response to questions regarding the perception of subarachnoid blockade was better in the group which received preoperative advice than the group which didn't receive any preoperative advice. This simple study reflected the importance of preoperative advice before caesarean section will definitely have a greater impact on the patients outcome.

#### CONCLUSION:

Preoperative assurance and advice are the simple factors which can have a drastic effect in the quality of anaesthesia. So ,this study revealed a small talk to patient before caesarean section has reduced the anxiety levels and it has improved the cooperation of the patient for a successful spinal anaesthesia.

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