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Added effect of mitchell relaxation technique with analgesics in reducing pain during functional activities in women after caesarean section

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ABSTRACT

The purpose of the study is to determine the added effect of Mitchell relaxation with analgesics in reducing pain during functional activities after caesarean section. Women after caesarean section experience pain due to operative trauma in bed mobility, sit-stand, walking till few days. Pain management can be done pharmacological and non pharmacological. The Mitchell Relaxation technique is non pharmacological management for pain reduction. This was an experimental study with pre and post test design, randomly assign, two group study was conducted in BSTRH..Post caesarean section primigravida women who met inclusion criteria were assigned to either experimental (n=30) or control group (n=30). Women in the experimental group received Mitchell relaxation technique with analgesics and those in the control group were managed only with analgesic. The outcome measure was a patient specific functional scale in which bed mobility, sit-stand, walking where they painful functional activities. Pre values were taken prior to medication on 2nd post partum day and post values were taken on 4th post partum day after 2 hours of medications. Statistical analysis was done and the difference between the pre and post values of the experimental group was more significant than the control group. The study shows that added effect of Mitchell relaxation with analgesics is more efficient in the reduction of pain during functional activities in women after caesarean section.

Keywords: Caesarean section, Pain, Mitchell relaxation technique, Analgesics.

INTRODUCTION

Caesarean section is a surgical procedure in which one or more incisions are made through a mother's abdomen and uterus to deliver one or more babies. A C-section is often performed when

a vaginal delivery would put the baby's or mother's life or health at risk. C-section are also carried out for personal preferences. [1] It is done in conditions like abnormal presentation, prolonged labour, fetal distress, uterine rupture, pre eclampsia, HIV

infection etc. [2] Women experience pain due to operative trauma till few weeks after operation. Due to pain, women experiences pain during coughing, sneezing, laughing and deep breathing . pain management can be done pharmacologically and non pharmacologically. Relaxation techniques are non pharmacological management for pain reduction. [3]

The “Mitchell method” of physiological relaxation is often known as the ‘SIMPLE method of relaxation’-is the name given to technique of relaxing the whole, or parts of your body. The mitchell method is based on principles:

- Tightening or contracting muscles result in movement
- Movement causes repositioning of joints and limbs.
- Movements are controlled by nervous system, if one group of muscles is instructed to tighten, the opposite group of muscles for that action receives an instruction to relax.
- Instructing the opposite muscle groups to ‘tighten’ will automatically result in ‘relax’ messages being received by tense muscles and joints. This new ‘position of ease’ can be learnt by registering the feeling in muscles, joints, skin, thereby resulting in relaxation.[4] Postoperative pain management is considered as an important issue in clinical practice. Though different approaches have been introduced for proper pain relief, but these multimodal approaches are still inadequate and unsatisfactory in many patients. caesarean section is one of the most common operations. Patients who undergo cesarean delivery should achieve more postoperative pain relief than other surgical patients because of different factors related to the operation complications as well as maternal and neonatal wellbeing. Immobility due to inadequate pain control could result in thromboembolic events, inappropriate neonatal care and delay in discharge which consequently increase the cost of this common procedure both for patients and health care system. [5]

Relaxation techniques are helpful tools for coping with stress and promoting long-term health

by slowing down the body and quieting the mind. Such techniques generally helps in refocusing attention (for example, noticing areas of tension), increasing body awareness, and exercises (such as meditation) to connect the body and mind together. In general, studies show that with consistent practice, relaxation techniques can potentially reduce symptoms or improve outcomes in the following conditions like:

Stress, Premenstrual syndrome, Pain, Irritable bowel syndrome, Anxiety Infertility, High blood pressure, High cholesterol, Diabetes, Panic disorders, Chronic tension headaches Fibromyalgia, Insomnia, Psoriasis, Arthritis, Hyperactivity in children, as in attention deficit hyperactivity disorder (ADHD), Labor and child birth. Research suggests that relaxation can help improve a person's quality of life and reduce stress hormone levels. Clinical studies also show that relaxation techniques reduce the perception of pain [6] The pain presented after caesarean section makes recovery difficult and delays mothers contact with newborns, besides being an obstacle to a good breastfeeding position, self-care, newborn care, and to perform daily activities, such as sitting down and standing up, walking, performing personal hygiene activities. Even presenting a universal occurrences, the post caesarean pain is frequently ignored, which may affect the patients satisfaction and diminish her quality of life, hence there should be some intervention do reduce pain apart from only medications.

Methodology

Type of study is experimental study with random sampling. The study was carried out at Bhausahab Sardesai Talegaon Rural Hospital on 30 primigravida women undergone caesarean section in experimental group and 30 primigravida women undergone caesarean section in control group experiencing pain even though with medications. Women not able to follow commands, Poor general condition, Unstable vitals, auditory handicapped were excluded from the study. Patient specific functional scale was used as outcome measure.

Procedure

With the approval of institutional ethical committee the study was conducted .Pilot study was done on 10 primigravida undergone C-section which showed that bed mobility, sit to stand

, walking were the most affected functional activity due to pain. so these activities were taken in patient specific functional scale (PSFS). For this study 60 primigravida undergone C-section were selected. As per inclusion criteria two groups were made, group A (control) and group B (experimental). The allocation was done by lottery method. Consent form were taken. In group A, 30 subjects were managed pharmacologically by analgesics (combiflam 500mg) twice a day from 2nd post partum day-4th post partum day. In group B (experimental), 30 subjects received Mitchell relaxation technique along with analgesics. Treatment was given for 15-20mins per session before medications, Two times per day from 2nd post partum day-4th post partum day. Technique was explained by the therapist in the patients language. Pillows were provided to the patient for relaxing. Pre PSFS scores were taken on 2nd postpartum day before giving treatment at 8am and post PSFS scores on 4th day after the treatment at 3pm.

SUPINE POSITION was given to the patient with pillows under knees. Order to the arms was given:

Shoulder- "pull your shoulders towards your feet"- away from the ears, making the neck longer. STOP. feel that your shoulders are lower down and now there is wide space between them and your ears.

- Elbow- "elbows out and open"- keep your arms supported, then push them slightly away from your sides, opening out at elbow joints. STOP. feel the positions of your arms and elbow, and pressure of your arms on their support, through the sensation of the skin.
- Hands- "fingers and thumbs "along and supported-open out your fingers and thumbs, keeping your wrist resting on their support. STOP. Feel your fingers and thumb fall back onto their support. dont let your hands touch each other .feel that the hands are still, the pads of fingers touching their support, be aware of your thumbs as they lie beside the fingers.

- Order to the legs:-
- Hips- "turn your hips outwards"- feel your thighs and legs roll outwards. STOP Feel that your legs have rolled outwards.
- Knees- "move your knees gently until comfortable. STOP. feel the comfort in the knees.
- Feet- "push your feet away from the face"- bend the ankle downward gently pointing your toes. STOP. Feel that your feet are softer at ankle joints, because all the lower leg muscles are now relaxed.
- Orders to the body- "press your body into the support"- using the bed. STOP. feel the pressure of your body on the support.
- Orders to the head- "press your head into pillow "- feel the movement in your neck as you do this. STOP. feel the weight of your head in the hollow you have made.
- Breathing orders- "take a deep breath"- feel your tummy swell out as you breath in "then breathe out easily"- repeat twice the ribs move in and out.
- Orders to the face-
- Jaw- "drag your jaw down"- do not open your mouth, just unclench your teeth inside your mouth and gently pull your jaw down. STOP. feel the space between your upper and lower teeth, that the skin over your cheeks is smooth with your lips still gently touching each other.
- Tongue- "bring your tongue down and let it lie in the middle of your mouth"- if it is stuck against the roof of your mouth. STOP. feel the tip of tongue touching your lower teeth.
- Eyes- "close your eyes"- if not already closed. let your eyelids close down over your eyes. STOP. be aware of the darkness with your eyes at rest.

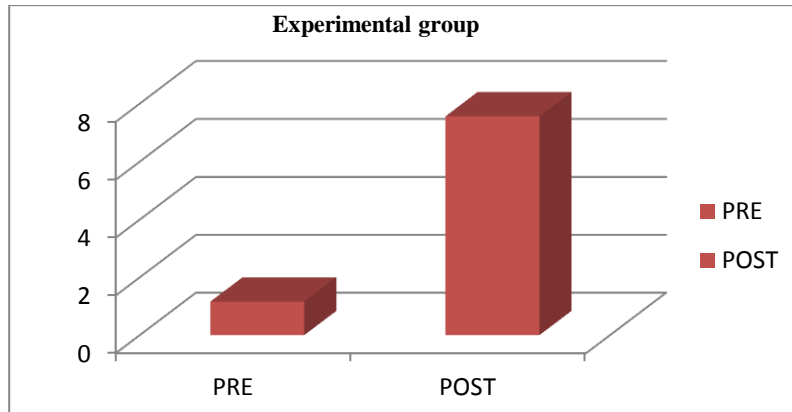
Forehead- "widen the space between your eyebrows and hairline, making it wrinkle free. STOP. feel the smoothing of skin of your forehead and your hair moving back as the large muscles of skull slackens and relaxes.

Statistical analysis

Statistical analysis in the group was taken by paired t test and between the group were taken by unpaired t test

Graph 1: Comparing Pre and Post of Experimental Group

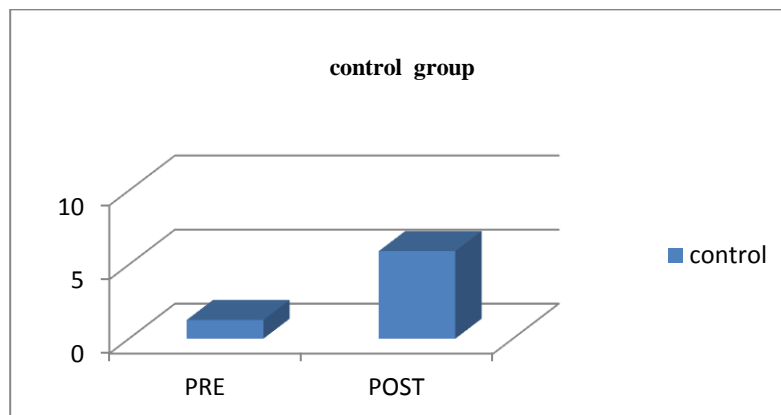
Experimental group	PRE	POST
MEAN	1.16	7.50



P value <0.0001, considered extremely significant

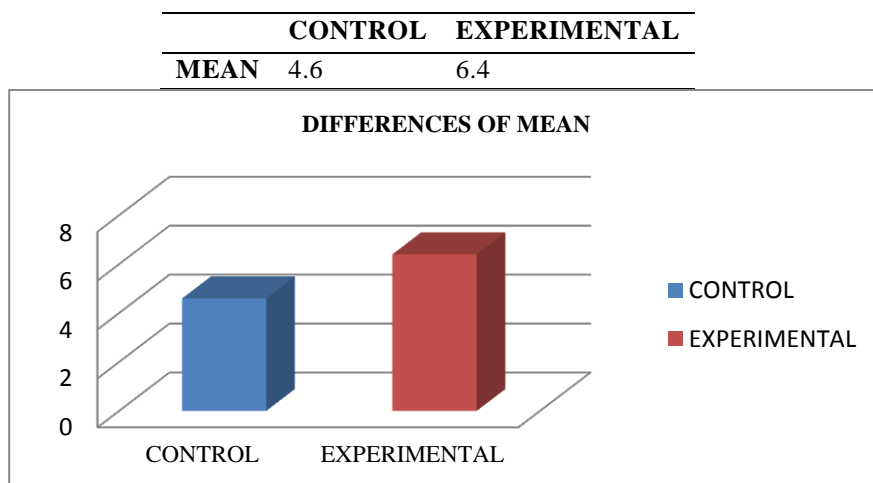
Graph 2: Comparing Pre And Post Of Control Group

Control group	PRE	POST
MEAN	1.26	5.90



P value <0.0001 ,considered extremely significant

Graph 3:Comparing Differences Of Control And Experimental Group



P value <0.0001, considered extremely significant.

DISCUSSION

The current study demonstrates that treatment in both the group were efficient in reduction of pain in women after c section, since the P values indicate that there was significant difference in the pre post values of both the groups.

But since the difference between the pre and post values of experimental group was more significant it shows that added effect of Mitchell relaxation with analgesics is more efficient in reduction of pain in women after caesarean section.

The possible reason may be that when human body become stressed due to pain or anxiety, our bodies engage in something called the "fight-or-flight response." These changes include increased heart rate, blood pressure, and rate of breathing, and a 300 to 400% increase in the amount of blood being pumped to the muscles. Over time, these reactions raise cholesterol levels, disturb intestinal activities, and depress the immune system. In general, they leave us feeling "stressed out."

According to Steven D. Ehrlich Univeristy of maryland, in a deep state of relaxation changes include decreased blood pressure, heart rate, muscle tension, and rate of breathing, as well as feelings of being calm and in control [6]. As per mitchell method ,Movements are controlled by nervous system, so Instructing the opposite muscle groups to 'tighten' will automatically result in 'relax' messages being received by tense muscles and joints. This new 'position of ease' Can be learnt by registering the feeling in muscles, joints, skin, thereby resulting in relaxation. [4]

In control group, combiflam was given as an analgesic drug after 24 hours of delivery twice a day for 3 days which relieved pain by blocking production of a certain natural substance prostaglandin that is released in the body during pain [22]. Pain in this group was reduced but the difference between the pre and post values of control group is less as compared to experimental group. Beside this, combiflam is known to have few side effects like abdominal pain, nausea, vomiting, diarrhoea [21] which may further increase stress on sutures which are already painful, which may delay mothers' contact with newborns, besides being an obstacle to a good breastfeeding position, self-care, newborn care, and to perform daily personal hygiene activities [8].

Few Clinical studies also supports this studies that relaxation techniques reduce the perception of pain in colorectal surgery and breast cancer patients [6]. As per A. Amirova, et al MMRT is an effective treatment for pain, sleep problems, and fatigue. The MMRT is proposed as an adjuvant treatment for fibromyalgia.

So, according to this study and other research data supporting it ,the Mitchell relaxation technique can be used as an intervention in daily clinical practice.

CONCLUSION

Women who were given Mitchell Relaxation Technique with Analgesics had more reduction in pain in her functional activities as compared to those women who were given only analgesics. So the added effect of Mitchell relaxation is more

efficient as compared to only pharmacological intervention.

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