ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24JUN1841

A study to Assess the Effectiveness of Lumbar Massage on Backache among Patients Underwent Spinal Anesthesia in Selected Hospitals

Monisha.K[1], Dr. P Padmavathi (Professor)[2], Rufeena.S[3]
[1](M.Sc. Nursing II Year, Dhanvantri College of Nursing, Namakkal, Tamil Nadu.)
[2](Principal, Dhanvantri College of Nursing, Namakkal, Tamil Nadu.)
[3](Lecturer, Dhanvantri College of Nursing, Namakkal, Tamil Nadu.)

Abstract:-

- ***Background:***

Spinal anesthesia is the most commonly used type of regional anesthesia in many surgeries, including genit ourinary surgery, cesarean section and lumbar surgery.P ost dural puncture pain is common complication after spinal anesthesia and is characterized by persistent pain around the spinal cord in the absence of radicular pain.Therapeutic massage involves manipulating the body's tissues with certain techniques.The goal of massage therapy is to affect cellular changes in tissues to promote healing and reduce pain and increase overall wellbeing.

- ***Aim*:**

To determine the effect of lumbar massage on back pain in patients underwent general anesthesia in selected hospitals.

- ***Design:***

Quasi-experimental design, Pretest Post-test non-equivalent group design.

- ***Participants:***

Thirty patients who met the inclusion criteria were selected to receive spinal anesthesia through convenience sampling.

- ***Methods:***

A study was done with 30 patients who underwent spinal anesthesia, 15 of which were interventional and 15 of which were observational group. The pain scale was used for the assessment tools.

- ***Results:***

According to the research results, it can be concluded that the average percentage of the difference after the experiment and control is 47% for the pain index numbers in the total area comparison. There was a full size distinction between the pre and post test scores of the patients in the interventional group who received spinal anesthesia there has been a big distinction in the sufferer's post test rankings. The t test score is 12.43 and is significant (P<0.05). There was a significant difference in post patient scores. No significant relationship was found between patients receiving spinal anesthesia and demographic difference.

- ***Conclusion:***

The effects showed that the average score of the patient in the control group receiving spinal anesthesia after the back pain examination was 7.33 ± 1.06,while the average score of the experimental group after the backache examination was 3.07 ±0.54.It shows that lumbar massage is beneficial for patients underwent spinal anesthesia.

Keyword:- *Effectiveness, Lumbar Massage, Underwent, Spinal Anesthesia.*

I. INTRODUCTION

- *"Turn Pain into Wisdom"*

Backache is a complicatedand multifaceted revel. For many people, this condition is a serious trouble that causes ache and decreases nice of life. This is one of the main reaso ns why people seek medical treatment. Ache happens in all medical settings and in different patients. Post operative back pain is a minor complication after surgery. The etiology may be multifactorial. However,if these patients are given general anesthesia or epidural anesthesia for surgery,the natural " trigger" reaction of many patients and surgeons is to detect back pain for spinal and epidural injections. Lumbar support is provided as a preventive intervention to prevent the onset of low backache or to prevent the recurrence of low backache **Ann mary Varghese et.al , (2018).**

The development of local anesthetics commenced with the isolation of local anesthetics, the primary being cocaine (the most effective not unusual anesthetic).The primary regional anesthetic system turned into spinal anesthesia and the primary spinal anesthesia surgery became executed in Germany through August Bier in 1898.Before that, best neighbourhood anesthetic processes were ocular anesthesia and infiltration anesthesia. The primary frightened device(CNS) Consists of the brain and spinal cord. The term spinal anesthesia refers back to the administration of local anesthesia in or around the spinal wire. Spinal anesthesia is

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24JUN1841

neuraxial anesthesia technique in which a local anesthetic is injected at once into the intrathecal area (subarachnoid space).The subarachnoid space space contains sterile CSF, a clean fluid that bathes the mind and spinal wire. There are approximately 130 to 140 ml of CSF circulating continuously within the person frame every day. About 500 ml of CSF is produced every day. Different neuraxial approaches encompass epidural anesthesia and caudal anesthesia ,each with its personal precise warning signs. Spinal anesthesia is done only within the lumbar spine for surgical processes concerning the abdomen, pelvis and lower extremities. **Abdulquadri M. Olawin (2022)**

Spinal anesthesia is one of the most popular and widely used types of anesthesia. This is a simple,cost and effective technique that provides total sensory and motor blockade and post operative analgesia with high success. The many advantages of spinal anesthesia include reducing the incidence of deep vein thrombosis,reducing blood loss and preventing pneumonia in emergency situations,especially for patients with breathing problems and known respiratory diseases. Current anesthesia procedures for cesarean section include general anesthesia and regional anesthesia. Spinal anesthesia has advantages during cesarean section due to its simplicity,quick use and initiation of anesthesia,reducing the risk of toxicity and increasing the speed of the spinal cord.**Kapil lamba (2019)**

Backache is often considered a common side effects after surgery.Many studies have shown that the prevalence an severity of backache after spinal cord injury is very high in developing countries.It is associated with decreased quality of life,decreased health care costs and satisfaction with health care. **Abraham Tarekegn Mersha et.al (2021)**

Treatment is designed to relieve pain and allow the patient to return to work,social and family activities.Therefore,medical treatment should be early,complete and combined with patient education. Complement the treatment with various self-treatment methods,such as self massage and self gymnastics to reinforce the effects of the treatment. Additionally,teaching proper movement techniques for important activities of daily living may help prevent later painful conditions. This is especially important for seniors who need the necessary support and cooperation of other family members to achieve effective,planned nd needed treatment. Massage can play an crucial position in this technique, normalizing the tension of musculoskeletal muscles and reducing pain by improving blood flow. **Iwona wilk et.al (2022)**

➢ *Statement of the Problem*

- *Objectives*

✓ To assess the level of backache among patients underwent spinal anesthesia in control and experimental group before and after lumbar massage.

✓ To determine the effectiveness of lumbar massage on backache among patients underwent spinal anesthesia in control and experimental group.

✓ To find out the association between post test scores of backache among control and experimental group of patients underwent spinal anesthesia with their demographic variables.

- *Hypotheses*

The following hypotheses were formulated to evaluate the study at the 0.05 significance level:

✓ *H_1- There is significant difference in the level of backache among patients underwent spinal anesthesia in control and experimental group before and after lumbar massage.*

✓ *H_2- There is significant effectiveness of lumbar massage on backache among patients underwent spinal anesthesia in control and experimental group.*

✓ *H_3- There is significant association between post test scores of backache among control and experimental group of patients underwent spinal anesthesia with their demographic variables.*

II. LITERATURE REVIEW

Godrey and colleagues (2019) selected 81 patients with low backache into threes groups. No further confession of the low backache type of the sample was provided. Patients receive chiropractice care, electrical stimulation therapy or massage therapy. The area from the sciatic notch to the thoracolumbar joint is massaged by the kinesiologist with light caresses(strokes) for 10 minutes. Statistical analysis is difficult and does not provide good information for massage groups. All groups showed significant improvement with no significant differences between groups.

Furlan and colleagues (2018) separate 158 outpatients into four groups. Patients must have “backache limited to the lumbosacral area, with or without radiation therapy to the thigh” for at least 3months. They receive balneothearpy , massage or they do not receive such treatment. The massage includes underwater massage with hot water jets(37 ° C,1 air pressure,10cm distance) to the affected area. Assess pain according to visual acuity and monitor analgesic intake. All patients have been evaluated on admission ,the values were 2.2 and 2.1 respectively. Pain decreased from 56.7 to 24.6 and 45.8 respectively. These transformation were sizeable ,collate to the ones observed inside the untreated institution.

A study by **G.F Wiesinger (2019)** concluded that SA is a spine procedure that comprehend the injection of local anesthetic into the subarachnoid space using a needle.SA has been used since 19th century and is currently the most widely used anesthetic style, allowing for many surgeries. Although GA was a pioneering technique of inducing states of consciousness and unconsciousness by injecting or inhaling drugs, stupor is now rarely accepted by pharmacists due to serious problems. Although headache is taken into

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24JUN1841

consideration to be the pinnacle three most aspect effect of SA ,the occurrence of complications varies.

V Fialka (2019) conducted a study stating**,** "The basis of success in life is health: it is the basis of wealth, it's also the idea of happiness. When a person is sick, he can't save money. At some point , all nine go out". One in 10 adults experiences backache at least once in their life and five in five older workers experience backache each year. Most backache is caused by stress and pain in the muscles, ligaments and tendons of the back. Nowadays, the incidence of postoperative pain is increasing and the position of the patient and the anesthesia surgical procedure performed play an critical function in the circumstance of backache.

III. METHODOLOGY

Design: The studies layout decided this look was a quasi-experimental design using a pretest and posttest, to determine the effectivity of lumbar massage on backache in patients underwent spinal anesthesia. **Setting:** The present study was conducted in selected hospitals at Erode. An approximately one hundred sufferers had been undergoing surgical procedures in keeping with month, out of which 50% of cases are spinal anesthesia surgical treatment. **Sample**: The samples selected for the existing study had been the sufferers underwent spinal anesthesia in selected hospitals at Erode, who were inclined to take part and present for the duration of the duration of record collection**. Sample size:** The total sample consisted of 30 patients underwent spinal anesthesia; 15 of them were in the control group and 15 were in the experimental group. **Sampling technique:** Convenience sampling method is a non – probability method of selecting sampling units. **Development of tool: Section A** It includes characteristics of patients who underwent spinal anesthesia, such as Age ,Gender, Name of the surgery ,Duration of surgery, Previous history of surgery, Occupation. **Section B:** It has a pain index that includes 10 factors whose answers are used to ascertain the patient's existent pain level. **Data collection procedure**: Data collection took 4 weeks to complete. Permission was obtained from the Ethics committee and the Managing Director of the selected hospitals, Erode. Respectable permission turned into obtained from the director of the selected hospitals to conduct this study. Confidentiality and anonymity are protected. The researcher accrued the facts from the observational group and the interventional group. The sample became selected using convenience sampling. Patients meeting the criteria were considered as samples. The intention of the study changed into elucidate to the patients and their participation became ensured. In the pretest, patients were asked to fill out different demographic information and their pretest number when they arrived in the waiting room. The experimental group received a waist massage for twenty-thirty minutes once a day for five consecutive days after surgery. Postoperative examination was performed using the same measurements on postoperative day 5.

IV. RESULTS

Table 1 Frequency and Percent of Patients in the Control and Experimental Companies Underwent Spinal Anesthesia in Keeping with Demographic Variables. (N1=15, N2=15)

S.No	Demographic variables	Control group		Experimental group	
		(N_1)	(%)	(N_2)	(%)
1.	**Age in years**				
	a) 21-30	1	7	3	20
	b) 31-40	5	33	3	20
	c) 41-50	5	33	4	27
	d) 51-60	4	27	5	33
2.	**Gender**				
	a) Male	9	60	8	53
	b) Female	6	40	7	47
3.	**Name of the Surgery**				
	a) Fistulectomy	3	20	4	27
	b) Hemorrhoidectomy	4	27	3	20
	c) Hernia repair	3	20	3	20
	d) Appendicectomy	1	06	1	06
	e) Fissurectomy	4	27	4	27
4.	**Duration of surgery**				
	a) Less than 1 hour	12	80	13	87
	b) 1-2 hour	3	20	2	13
	c) More than 2 hour	0	0	0	0
5.	**Previous history of surgery**				
	a) Yes	6	40	9	60
	b) No	9	60	6	40
6.	**Occupation**				
	a) Medical	1	06	0	0
	b) Non medical	14	94	15	100

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24JUN1841

Table 2 Frequency and Percentage of Test Rankings before and after Low Lower Back Ache Test in Spinal Anesthesia Underwent Sufferers within the Experimental Group. (N2 = 15)

Level of backache	Experimental group			
	Pre test		Post test	
	(N_2)	%	(N_2)	%
No/Low backache	8	53	13	87
Moderate backache	5	33	2	13
High backache	2	14	0	0

Table 3 Frequency& Percentage of Scores after Returned Pain Examination of Patients in the Manipulate and Experimental Groups Underwent Spinal Anesthesia. N1 = 15 (N2 = 15)

Level of backache	Post test scores			
	Control group		Experimental group	
	(N_1)	%	(N_2)	%
No/Low backache	10	67	13	87
Moderate backache	4	27	2	13
High backache	1	06	0	0

Table 4 Paired t-test Values of Pre- and Posttest Back Pain Scores in the Control Group and Experimental Group

Patients underwent spinal anesthesia	Paired 't' value	Table value	Level of significant (P)
Control group	7.83	2.15	P < 0.05 **significant**
Experimental group	12.43	2.15	P < 0.05 **significant**

Df =14 Table value=2.15 P<0.05 significant

Table 5 Comparison of Mean, Standard Deviation and Back Pain Percentage between the Control Group and the Experimental Gr oup before and after the Experiment

Patients underwent spinal anesthesia	Max scores	Pre test			Post test			Difference in mean %
		Mean	SD	Mean %	Mean	SD	Mean %	
Control group	10	8.33	0.96	83	7.33	1.06	73	10
Experimental group	10	8.67	1.78	87	3.07	0.54	30	57

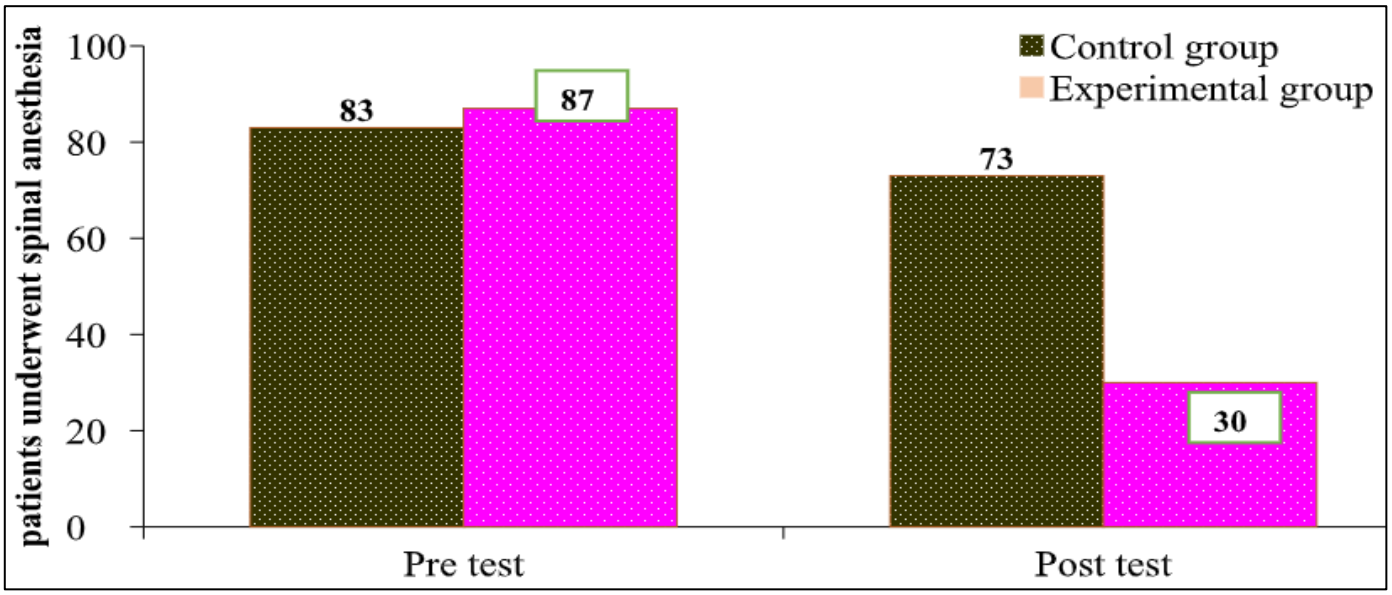

Fig 1 Bar Diagram showing the Mean % Allocated of Pretest and post Test Scores of Level of Backache among Patients Underwent Spinal Anesthesia in Observational and Interventional Group

Table 6 Unpaired t-test Significance of Back Pain Post-Test Scores for Control and Experimental Groups

Level of backache	Unpaired 't' value	Table value	Level of significant (P)
Post test scores of backache in experimental and control group	6.42	2.05	P<0.05 **(S)**

Df=28 Table value=2.05 P<0.05 significant

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24JUN1841

Table 7 Chisquare Values Regarding the Relationship between the Posttest Scores of the Experimental Group and their Differences in the Universe

Demographic variables	DF	$\chi 2$	Table value	Level of significance
Age	1	0.00	3.84	P > 0.05 (NS)
Sex	1	3.50	3.84	P>0.05 (NS)
Surgery	4	1.09	9.49	P>0.05 (NS)
Duration of surgery	1	4.29	3.84	P<0.05 (S)
Past history of surgery	1	0.00	3.84	P>0.05 (NS)
Occupation	1	0.00	3.84	P>0.05 (NS)

V. DISCUSSION

Frequency and percent distribution of interventional group pre check and post check take a look at ratings of level of backache among sufferers underwent spinal anesthesia depicts that, in pretest majority (53%) of sufferers had no/low backache,33 percentage of sufferers had moderate backache and only 14% of patients had excessive backache ,whereas in publish take a look at most of them (87%) had no/low backache and 13% of sufferers had moderate backache. It appears that evidently lumbar massage on backache amongst sufferers underwent spinal anesthesia become effective.

Frequency and percentage allocate of control organization and experimental group put up take a look at scores of degree of backache amongst patients underwent spinal anesthesia depicts that, on top of things organization most(sixty seven %) of sufferers had no/low backache,27% of sufferers had moderate backache and six% of them had excessive backache, whereas in experimental organization most (87%) of sufferers had no/low backache and most effective 13 percentage of sufferers had mild backache. Evidently lumbar massage on backache among sufferers underwent spinal anesthesia became powerful. The effectiveness of lumbar massage became examined via the use of suggest, general deviation, imply percent, paired t test and unpaired t test.

Paired t test check changed into calculated to analyse the effectiveness between pre and submit test ratings of control and experimental organization on level of backache among patients underwent spinal anesthesia. The paired t test fee changed into 7.83 and 12.43 on top of things institution and experimental organization, whilst as collate to desk value(2.15) both are immense. This indicates that despite the fact that there was a widespread effectiveness among pre and publish take a look at ratings of level of backache among each control and experimental institution, lumbar massage turned into extra effective on backache amongst suffers underwent spinal anesthesia.

Collate of mean, SD, and mean percentage of observational and interventional organization pre and post test scores divulge that, in observational group, pre test mean score was (8.33 ± 0.96),which is 83%, whereas in post test the mean score was (7.33 ± 1.06), which is 73%, showing a difference of 10% on the level of backache. In interventional group, pre test the mean score was (8.67± 1.78), which is 87%, whereas in post test the mean score was (3.07 ± 0.54), which is 30%, showing a distinction of 57% on level of backache. It appears to exist that lumbar massage was effective on backache among patients underwent spinal anesthesia.

Unpaired ‘t’ test was estimated to scrutinized the effectiveness between observational and interventional groups post test scores on level of backache among patients underwent spinal anesthesia. The unpaired ‘t’ test value was 6.42, when collate to table value (2.05, p<0.05), it is huge. It appears to exist that there was a significant effecacious of lumbar massage on backache among patients underwent spinal anesthesia.

Chi square changed into estimated to find out the collaboration between interventional organization put up check rankings of the sufferers underwent spinal anesthesia with their demographic variables(Age, gender, name of the surgery, duration of surgery, previous history of surgery, occupation).It famous that there has been big affiliation (p<0.05) construct only in duration of surgery, whereas no significant association (p>0.05) discovered most of the positioned up test ratings of interventional organization whilst in comparison to other demographic variables collectively with Age, gender, name of the surgery, duration of surgery, previous history of surgery, occupation ultimately the differences discovered in the suggest rankings values had been only via way of threat and no longer actual difference. It appears that evidently lumbar massage changed into powerful to all the sufferers underwent spinal anesthesia irrespective of their demographic variables.

VI. CONCLUSION

The effect displayed that the average score of the patients in the control group who received neuraxial anesthesia after low back pain was 7.33 ± 1.06, while the average score of the experimental group after low back pain was half of the score. measurement is 3.07 ± 0.54. Show that lumbar massage is effective in patients underwentspinal anesthesia. Paired t test and unpaired t test showed that lumbar massage had a significant effect on back pain in lumbar anesthesia patients. Chisquare test showed that only the surgery time of the experimental group was associated with the postpain severity score and other demographic variables, while there was no significant correlation with the postpain intensity scores in both control groups. and experimental group.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24JUN1841

REFERENCES

[1]. Anderson KN, Anderson LE, Glanze WD (1994) Mosby's Medical , Nursing & Allied Health dictionary, 4th Edition, Orlando: Mosby.

[2]. Barbara Kozier (1999) fundamentals of Nursing concepts, process and practice 7th edition,J.B.Lippincott company, Philadelphia.

[3]. Black M Joyce and Hawks Hokanson (2005), medical surgical nursing 7th edition , WB Saunders company, Missouri.

[4]. Brunner and Suddarth's (2000) Text book of medical surgical nursing ,9th edition, Lippincott williamsand wilkins publication, Newyork.

[5]. Denise, F.Polit., Bernadette, P.Hungler,(1999),Nursing Research principles and methods 6th edition ,Lippincott William and wilkins publications. Newyork.

[6]. Lewis Sharon Mantik (2004) **"Medical Surgical Nursing"** 3rd edition , Mosby publication ; Philadelphia.

[7]. Brenda G Bare (1998), Medical Surgical Nursing 9th edition, Lippincott company; Philadelphia.

[8]. Long Phipps and cassvever, (1993) "Medical Surgical Nursing" Nursing process approach" 3rd edition, mosby publication, Missouri.

[9]. Basavanthappa. B.J. (1998). Nursing Research. Bangalore: Jaypee publishers.

[10]. Suresh K.Sharma.(2019).Lippincott manual of medical surgical nursing, (10th edition)Wolters Kluwer publications.

[11]. Tamara Kear and Madhavi (2019). Brunner and Suddarth's text book of medical surgical nursing. Wolters Kluwer publication.