

# Prevalence of Persistent Low Back Pain in Patients Undergoing Spinal Anesthesia in Orthopedic Surgery

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## ABSTRACT

**Aim:** To find out the prevalence of persistent low back pain in patients undergoing spinal anesthesia in orthopedic surgeries in Ghurki Trust Teaching Hospital, Lahore.

**Subject & methodology:** Seventy five patients are enrolled in this study with the help of convenience sampling techniques 36 of them were male and remaining 39 were female. A cross sectional survey was done. Participants of the study are of both gender and any age having established diagnosis of persistent low back pain. Duration of the study was 6 months. Our questionnaire which is used is designed specifically to find out the prevalence of persistent back pain in patients undergoing spinal anesthesia. Surprisingly no firm data regarding persistent low back pain exist.

**Results:** 75 questionnaires were filled by patients undergoing spinal anesthesia. Out of which 36 of them were male and remaining 39 were female. Most of people do not have previous history of back pain (84% as compared to 16 percent of back pain). Data reveal that patients having previous history of back pain have back pain after the surgery undergoing spinal anesthesia. Also patients having previous history of surgical procedure undergoing spinal anesthesia in past (spinal anesthesia 14.7% and past surgery 12%) have back pain after the surgery (require further research).patients having no history of spinal anesthesia (85.3%) and previous surgery (88%) have no back pain after the surgery. Patients having back pain after the surgery, have moderate pain(8%), mild pain (10.7%), discomfort (8%).out of 75 patients 55 patients have no back pain (73.3%).

**Conclusions:** Persistent back pain after spinal anesthesia is almost exclusively associated with pre-existing back pain and previous history of spinal anesthesia. New onset of persistent back pain is a rarely event.

**Keywords:** persistent low back pain (PBP), Spinal anesthesia (SA), previous surgery (PS),

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## INTRODUCTION

Low back pain is a common musculoskeletal disorder. It is the pain in the lower back area that can relate to problems with the lumbar spine, the discs between the vertebrae, the ligaments around the spine and discs Backache is a common public health problem and a major psychological, physical and economic burden for the individual and the society<sup>1</sup>. Back pain is one of humanity's most frequent complaints and a common reason for physician visits. It is estimated that nine out of ten adults experience backache at least once in their lifetime, and five out of ten working adults have back pain every year. Back pain after surgery may result from a multitude of causes that include posture during surgery, aggravation of an existing medical condition or needle trauma during central neuraxial block<sup>2,3</sup>. In rare cases this may be by the manifestation of a sinister condition like epidural abscess or hematoma following a central neuraxial block<sup>4</sup>.

Back pain causing problems like annulus tears,

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chronic lumber degenerative disc disease, central herniated nucleus pulposus, herniated nucleus pulposus with nerve root irritation, herniated nucleus pulposus with neurogenic deficit, spondylolysis, spondylolisthesis, spinal stenosis, cancer of spine and psychologic.

## MATERIALS & METHODS

This cross sectional study was completed in 6 months from June 1, 2012 to November 28, 2012 conducted at Ghurki Trust Teaching Hospital, Lahore. A sample of 75 patients was taken. The history of PBP and previous history of spinal anesthesia was taken through a structured questionnaire. VAS (visual analog scale) for pain intensity was dependent variables in study. It constituted as the blue print of collection, viewing observations, analysis of records. The simple purpose of the design is to solve the problem and is used for the development of a non-experimental strategy for obtaining empirical data that will answer our question. Direct personal method was used in this study; the researcher approached the patients in ICU and interviewed them.

The research design constitute a blue print for the collection, view observations, they analysis of records stimulations or combinations of these. The principle purpose of the research design is the development of descriptive strategy for obtaining the empirical data that will answer the question. This is not true experimental design because treatments are assigned to the experimental units. A cross sectional survey was done. Participants of the study are of both gender and any age having established diagnosis of persistent low back pain.

**RESULTS**

Seventy five questionnaires were filled by patients undergoing spinal anesthesia. Out of which 36 of them were male and remaining 39 were female. Most of people do not have previous history of back pain (84% as compared to 16 percent of back pain). Data reveal that patients having previous history of back pain have back pain after the surgery undergoing spinal anesthesia. Also patients having previous history of surgical procedure undergoing spinal anesthesia in past (spinal anesthesia 14.7% and past surgery 12%) have back pain after the surgery (require further research).patients having no history of spinal anesthesia (85.3%) and previous surgery (88%) have no back pain after the surgery. Patients having back pain after the surgery, have moderate pain(8%), mild pain (10.7%), discomfort (8%).out of 75 patients 55 patients have no back pain (73.3%).

Table 1: Demographic and personal characteristics of patients and their LBP intensity:

	Male	Female
Study sample	36(48%)	39(52%)
The intensity of LBP		
Unbearable	Nil	Nil
Severe	Nil	Nil
Moderate	4	2
Mild	4	4
Discomfort	2	4
No pains	26	29

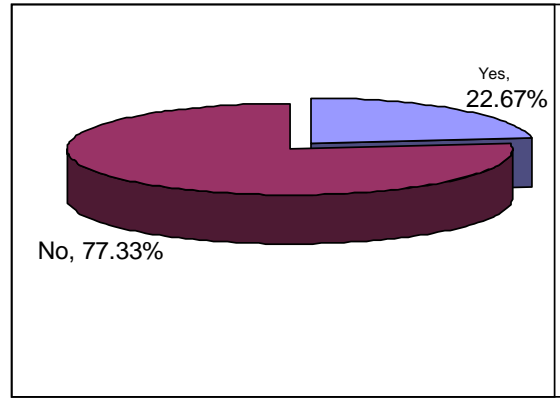
LBP in males falls more in moderate and mild intensity whereas in females it falls more in no pain and discomfort intensity level.

Table 2: Patients having back pain before surgery (n=75)

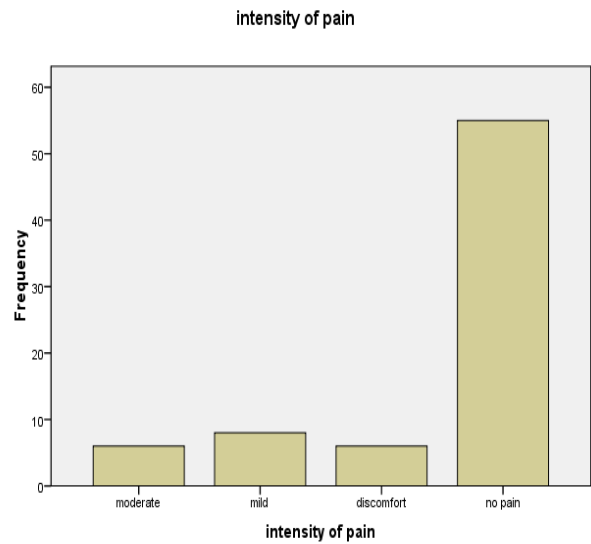
	Male	Female	Total
Back pain before the surgical procedure			
Yes	7	5	12
No	29	34	63

According to the table males had more back pain than females.

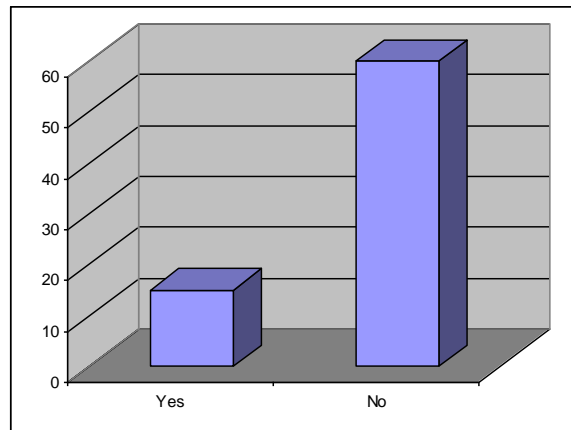
Back pain

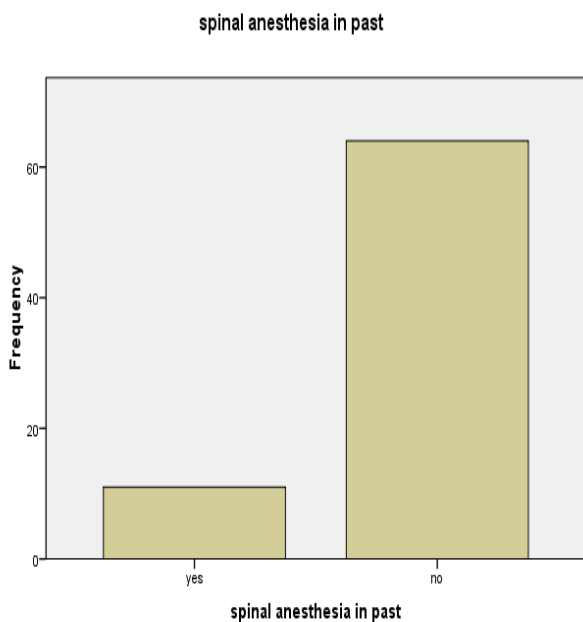
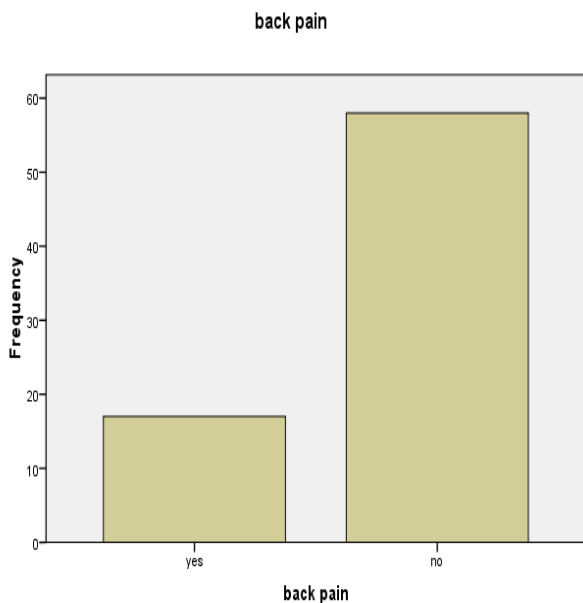


Back pain after the spinal anesthesia



Back pain before the surgical procedure





**DISCUSSION**

The main conclusions of this study were as follows: persistent back pain after spinal anesthesia is almost exclusively associated with pre-existing back pain and previous history of spinal anesthesia. New onset of persistent back pain is a rare event. Our conclusions depended on questioning 75 patients who had undergone spinal anesthesia for the orthopedic surgeries. Our questionnaire which is

used is designed specifically to find out the prevalence of persistent back pain in patients undergoing spinal anesthesia. Patients with PBP had history of pre-existing back pain and also had spinal anesthesia more than one time. Back Pain can be managed in these patients pre-surgically through various rehabilitation protocols and patients who had undergone SA more than one time should be informed that it can be persisted after the surgery.

**CONCLUSION**

According to this cross sectional survey patients undergoing spinal anesthesia in orthopedic surgeries for the first time have no back pain. Patients of previous history of spinal anesthesia or having spinal anesthesia more than one time have back pain. Also patients having previous history of back pain also have back pain. It shows that multiple spinal anesthesia and previous history of back pain may be the reason of back pain after the surgery.

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