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Orignal Article

Survey on Prevalence and Comparison of Back Pain Among Surgeons

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ABSTRACT

The Low Back Pain (LBP) affects almost every dentist at some point in their career **Objective:** The objective was to determine the prevalence of LBP and comparison of lower back pain among surgeons of different specialties. **Methods:** For this research, 100 sample size was estimated. A self-prepared questionnaire having 25 items was distributed to respondents to gather data about the prevalence of LBP in surgeons of different specialties. Using SPSS V-19 data was analyzed having quantitative and qualitative variables. **Results:** It was noted that out of 10, general (4), cardiac (2), plastic (2), ENT(4), trauma(6), pediatric(4), orthopedic(7), neuro (2), urology(2) and gynecology (6) specialty felt LBP during surgeries. Out of 100 surgeons of diverse specialties, 43 surgeons have LBP during the surgery. Out of 100 diverse specialty surgeons, 25 surgeons have LBP in the region of the lumbar, thoracic region (2 surgeons), and 29 in their region of lower lumbar. **Conclusion:** It was concluded that Gyne & Obs and ENT surgeons are more prone to LBP as compared to the surgeons of other specialties. The reason for the LBP was tough routine, lengthy-standing time during surgeries of patients, an adaptation of abnormal postures, and less rest time.

INTRODUCTION

In USA, the incidence of low back pain (LBP) is 10-30% every year in the adult population and the prevalence of life is as high as 65-80% in adults [1,2]. In working-age, people from 26 to 60 years, at least once in their lifetime, are affected by low back pain [3]. In recent years, occupational LBP has emerged as a health concern[4,5] In analysis, it was discovered that in healthcare workers LBP prevalence varied from 33% to 86%, in Italy. Nurses and surgeons are the healthcare employees most likely to experience discomfort or pain from musculoskeletal diseases (MSDs) over their careers[6]. The most common complaint particularly among Dentists is LBP, worldwide. The LBP affects almost every dentist at some point in their career and because of their prolonged sitting posture, they are prone to low back pain, though, the work performance is also decreased by LBP[7]. LBP can be radiate or localized, and it can impair lower limb weakness, leading to an irregular gait in some situations. LBP prevalence is reported as 44.9% worldwide, while in Pakistan 56% of a dentist are reported to be affected by LBP[8,9]. The modify able risk factors occupation-related for instance, lifting of heavy loads, poor posture, and activity in sustain postures while the non-modifiable factors are past history of LBP, age, the changeable factors include smoking, an inactive lifestyle, and obesity [10,11]. Different methods are used to manage LBP which depends on the culture and norms of that region however pharmacological management along with physical therapy management are the common methods that are being used[12,13]. Its cause is complicated and might arise from diverse spinal structures

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comprising nerve roots, joints, discs, muscles, and fascia or ligaments[9]. However, no clear cause can be discovered in most cases. When the primary cause cannot be determined, specifically then it could be termed as Non-specific LBP [14]. The non-specific LBP diagnosis is usually formed on the other identified cause's exclusion for instance neoplasms infections or trauma [15]. It is usually referred to as pain that originates below the costal border and extends to the back of the body extending to the gluteal folds with or without referred pain into one or both legs that last for at least one day [16,17].

METHODS

This cross-sectional study was conducted from January 2015 to June 2015. After taking permission from the institutional review board of the hospital this study was performed in different hospitals of Peshawar city of Pakistan.

Public sector Hospitals	Private sector hospitals
Moulvieji hospital Peshawar	Mercy teaching hospital
City hospital Peshawar	Naseer teaching hospital
Hayatabad medical complex Peshawar	Kuwait teaching hospital
Khyber teaching hospital Peshawar	Northwest general hospital & research center
Lady reading hospital Peshawar	Rehman medical institute

For this study sample size of 100 surgeon doctors of various specialties was calculated to meet the objective of the study. For purpose of data collection, non-probability consecutive sampling was used. Surgeons having specialties of different fields, surgeons of cardiothoracic, otolaryngology, general surgeons, surgeons of oral & maxillofacial surgery, neurosurgeons, (ENT) surgeons, surgeons of pediatrics, trauma & Orthopaedics surgeons, plastic surgeons, urologist, gyne & obs, medical doctors, physiotherapists, pharmacists, nurses, radiologists, medical students, general physicians, and technicians from different private & government sectors hospital were included in the study. The questionnaire was contained 25 items. Quantitative variables were weight, height, smoking, length of surgery, physical activity, intensity of pain, pain duration, relieving and aggravating factors for LBP were noted and the response of doctors was taken by that questionnaire. Data was analyzed using SPSS V-19.

RESULTS

It was noted that out of 10, general (4), cardiac (2), plastic (2), ENT(4), trauma(6), pediatric(4), and orthopedic(7), neuro (2), urology(2) and gynecology (6) specialty felt LBP during surgeries as shown in Table 1. Out of 100 surgeons of diverse specialty 43 surgeons have LBP during the surgery. Out of 100 diverse specialty surgeons' 25 surgeons have LBP in region of lumbar, thoracic region (2 surgeons) and 29 in their region of lower lumbar as shown in Table 2.

Specialty of Surgeon		Low Back Pain (LBP) in operation			Total
		yes	no	Occasionally	
specialty	Surgeon of ENT	4	4	2	10
	general surgeon	4	2	4	10
	surgeon of pediatric	4	6	0	10
	Oral and maxillofacial surgery	0	10	0	10
	plastic surgeon	2	4	4	10
	Surgeon of urology	2	5	3	10
	orthopedic & trauma	6	1	3	10
	cardiac	2	8	0	10
	gyne and obs	6	3	1	10
	Neuro	1	1	8	10
Sum		31	44	25	100

Table 2: Prevalence of lower back pain in surgeons of different specialty.

Surgeon		Pain location				Complete
		region of thoracic	region of lumber	Region of lower lumber	Region of sacral	
degree/ specialization	surgeon of orthopaedic & trauma	0	2	7	0	9
	general surgeon	1	5	2	0	8
	surgeon of Neuro	1	4	4	1	10
	Surgeon of gyne & obs	0	0	6	1	7
	surgeon of cardiology	0	1	1	0	2
	Surgeon of ENT	0	0	6	0	6
	Surgeon of plastic surgery	0	4	3	0	7
	surgeon of pediatric	0	4	0	0	4
	Surgeon ofurology	0	5	0	0	5
Total		2	25	29	2	58

Table 3: Prevalence of lower back pain in different regions of the surgeon's body specialty

DISCUSSION

National-level research in the department of otolaryngology from UK reported that the prevalence of LBP was 325 (75%) otolaryngologists surgeons[18]. While results of study showed that 43% surgeons felt LBP during surgeries among 4 surgeons were ENT speciality, 6 surgeons from gynae & obs department who felt back pain. Our results were closely matched with the study conducted in Iran, which reported that back pain was observed in 250 surgeons who were selected randomly. Among these surgeons, the highest prevalence was of gynecologists almost 44.8% in duration of 6 months[19]. Our results are also in line with a study, which reported that 332 gyne & obs surgeons were enrolled in the study and it was observed that 33% of surgeons felt back pain[20].

CONCLUSION

It was concluded that Gyne & Obs and ENT surgeons are more prone to LBP as compared to the surgeons of other specialties. The reason of the lower back pain was tough routine, lengthy-standing time during surgeries of patients, an adaptation of abnormal postures, and due to less rest time.

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