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Research Article

ANALYSIS OF ANXIETY AND ITS RELATED RISK FACTORS IN PATIENTS WITH LUMBER DISC HERNIATION

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Abstract:

Introduction: Degenerative disc disease is commonly accounted as causal in acute and chronic back/leg pain in the general population. About 15% of patients with a herniated disc require surgery, because they do not respond to conservative approaches or experience major neurologic losses. **Objectives of the study:** The basic aim of the study is to analyze the anxiety and its related risk factors in patients with lumbar disc herniation. **Methodology of the study:** This descriptive study was conducted in RHC Bosal, Mandi Bahauddin during March 2018 to August 2018. The data was collected from 50 patients who were suffering from lumbar disc herniation. The data of depression and anxiety was collected through a questionnaire which were designed according to depression and anxiety scale. Anxiety was assessed with the Generalized Anxiety Disorder 7-Item Scale GAD-7. **Results:** The data was collected from 50 lumbar disc herniation patients. There were 20 females and 30 males. The mean age of the participants was 58.8 ± 5.46 years and the mean GAD-7 score was 5.0. Almost 50% of the patients were suffering from chronic pain prior to surgery, which was defined as pain lasting for at least 6 months. The mean pain score was high before the surgery as compared to post surgery period. Mean NRS scores preoperatively were 6.8 (SD 2.6), and decreased to 2.9 (SD 2.4) 6-weeks after surgery. **Conclusion:** It is concluded that lumbar disc herniation conscripts have some psychological problems, such as depression and anxiety, in comparison with healthy controls.

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INTRODUCTION:

Degenerative disc disease is commonly accounted as causal in acute and chronic back/leg pain in the general population. About 15% of patients with a herniated disc require surgery, because they do not respond to conservative approaches or experience major neurologic losses. The main function of surgical treatment is the elimination of pain and associated physical dysfunction. Therefore, the measuring of pain is an important indicator for surgical success [1].

Studies showed that surgery helps the majority of patients to overcome pain symptoms, but between 7 and 23% of the operated patients still report severe pain or even experience no pain relief at all [2]. While surgical complications may be responsible for persisting symptoms in some patients, these problems do not give an all-embracing explanation for ongoing pain. Whether a patient benefits sufficiently from surgery or not can most likely be explained by patient characteristics [3]. Research revealed different socio-demographic, medical, occupational and psychological factors that were associated with persistent pain.

Lumbar disc herniation (LDH) is one of the most important causes of low back pain in adulthood. LDH patients may be usually treated with conservative care and a nonsurgical approach, such as physical therapy and pharmacotherapy for pain relief [4]. Only 1% of these patients have a medical condition requiring surgical intervention. One of the most important clinical variables to determine surgical approaches to LDH patients is the severity of pain and disability [5]. Most LDH patients who suffer from persistent low back pain and disability are known to be associated with psychological abnormalities. However, it is difficult to reveal the relationships among pain, disability, and psychological factors, because psychological

factors, such as depression and anxiety, may precede the onset of pain and may also be presented as complications of chronic persisting pain and disability [6].

Objectives of the study

The basic aim of the study is to analyze the anxiety and its related risk factors in patients with lumbar disc herniation.

METHODOLOGY OF THE STUDY:

This descriptive study was conducted in RHC Bosal, Mandi Bahauddin during March 2018 to August 2018. The data was collected from 50 patients who were suffering from lumbar disc herniation. The data of depression and anxiety was collected through a questionnaire which were designed according to depression and anxiety scale. Anxiety was assessed with the Generalized Anxiety Disorder 7-Item Scale GAD-7. Preoperative pain duration for more than 6 months was defined as chronic pain as specified in the German pain questionnaire.

Statistical analysis

All the collected data was entered into SPSS version 21.0 for further analysis. All the values were expressed in mean and standard deviation.

RESULTS:

The data was collected from 50 lumbar disc herniation patients. There were 20 females and 30 males. The mean age of the participants was 58.8 ± 5.46 years and the mean GAD-7 score was 5.0. Almost 50% of the patients were suffering from chronic pain prior to surgery, which was defined as pain lasting for at least 6 months. The mean pain score was high before the surgery as compared to post surgery period. Mean NRS scores preoperatively were 6.8 (SD 2.6), and decreased to 2.9 (SD 2.4) 6-weeks after surgery.

Table 01: Socio-demographic data and pain score of 50 participants

Characteristics	N=50
Mean age (standard deviation)	58.8±5.46
95% confidence interval of age	55.7–62.0
Range of age	24.4–86.9
Educational level	
Mean preoperative anxiety (standard deviation)	5.0±3.76
Number of anxiety cases ° (N, %)	45 (42.5)
Mild anxiety (GAD-7 score 6–9)	33.0%
Moderate anxiety (GAD-7 score 10–14)	6.6%
Severe anxiety (GAD-7 score >=15)	2.8%
Mean body mass index (standard deviation)	27.9±4.54
Preoperative ASA (American Society of Anesthesiologists physical status classification system)	
ASA 1 (%)	9 (8.5)
ASA 2 (%)	51 (48.1)
ASA 3 (%)	45 (42.5)

ASA 4 (%)	1 (0.9)
Mean duration of surgery in minutes (standard deviation)	117 (53)
95% confidence interval of duration of surgery	107–127
Range of duration of surgery	40–299

DISCUSSION:

Among socio-demographic variables, BMI, but not age or sex, was also predictive for ongoing pain 6-months after lumbar disc surgery, but not for the intake of analgesics. Anxiety, assessed with the GAD-7 questionnaire, had no predictive value, neither for pain nor for analgesic consumption. The role of psychological factors such as anxiety, depression or catastrophizing for the outcome of patients undergoing herniated disc surgery is considered as relevant, as shown in several review articles [7]. In a systematic review using different measures for preoperative anxiety and catastrophizing, these psychological factors were shown to play a role in the development of chronic postsurgical pain. In a previous study, we identified nearly 20% of patients with preoperative anxiety [8]. So far, the association between preoperative anxiety and postoperative pain intensity has been outlined in only two prospective studies with different results. In one study evaluating the role of trait anxiety on persistent radicular pain after lumbar disc herniation surgery, patients identified with trait anxiety had significantly higher postoperative VAS (visual analog scale) pain scores until 12 months after surgery [9].

Disability is a good clinical assessment of severity in low back pain, and is also a determinant of returning to work, and is related to the transition from acute episode to chronicity in patients with low back pain [10]. Previous studies suggested that some psychological factors such as depression (or distress) and anxiety (or fear avoidance) are the significant predictors of functional disability in patients with low back pain [11].

CONCLUSION:

It is concluded that lumbar disc herniation conscripts have some psychological problems, such as depression and anxiety, in comparison with healthy controls. Depression and anxiety were significantly associated with functional disability, but state anxiety, not depression, predicted functional disability of the LDH conscripts.

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