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Original Research Article

Predisposition of sciatica in different socioeconomic classes: a brief clinical survey

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ABSTRACT

Background: Sciatica became the accepted name for pain radiating from the lower back or buttock into the leg after being distinguished from arthritic hip pain in the 18th century. Several studies suggest strong connection of Socioeconomic status with sciatica. Accurate data on the incidence and prevalence of sciatica is still missing. The objective of this study was to observe a relationship of sciatica patients with their socioeconomic status.
Methods: Sixty (60) diagnosed cases of sciatica selected randomly were interrogated and assessed according to the modified Kuppuswamy's socioeconomic status (SES) scale.
Results: It was found that 36.6% were belonging to upper-middle class of society, 35% from lower-middle class, 13.8% from upper-lower class, 8.6% from upper class and only 6.9% were belonging to lower socioeconomic class of society.
Conclusions: The current study depicted that the sciatica is more common in middle socioeconomic class followed by upper and lower socioeconomic class respectively.

Keywords: Incidence, Irq-al-nasa, Socioeconomic, Unani

INTRODUCTION

The word 'sciatica' is derivative of the Greek word 'ischión' meaning hip-joint and the Latin word 'ischiadicus' meaning hip pain., Sciatic nerve pain was differentiated from arthritic hip pain in 18th century thereafter, 'sciatica' became the established term for pain radiating from the lower back or buttock into the leg.[1] The distribution of sciatic pain is along the lumbosacral nerve root and it mostly affects young, working adults.[2] In 1934, the inter-vertebral disc was implicated in the pathophysiology of sciatica.[3]

Different factors are thought to influence the clinical profile of patients suffering from sciatica such as occupational factors, strenuous physical activity, driving, movements including vibration of whole body may be prone to sciatica.[4] Life time incidence of sciatica was estimated to be 13 % to 40 %.[4] Prevalence of sciatica is also highest in the wage-earning years.[5] The corresponding annual incidence of an attack of sciatica ranges from 1% to 5%.[6,7] In approximately 90% of the cases sciatica occurs due to lumbar disc herniation.[8] Accurate data on the incidence and prevalence of sciatica is still missing.

The present study was desirable to observe a relationship of sciatica patients with their socioeconomic status which may boost up the limited data available regarding this issue.

METHODS

A cross sectional study was conducted at RRIUM, Srinagar, Kashmir, in the year 2019-20 in which sixty (60) diagnosed cases of sciatica selected randomly were interrogated and assessed according to the modified Kuppuswamy's socioeconomic status (SES) scale and the observations so derived were recorded in the case record form (CRF) of each case individually. Kuppuswamy's socioeconomic status scale (modified for 2020) include questionnaire with multiple fields which are:[9]

Occupation of the head of the family

In this we enquire for the occupation of family head where the score ranged from 1-10 in descending order so that, score 10 was given for senior officials, managers and legislators, score 9 for professionals, 8 for technicians, 7 for clerks, 6 for skilled workers, 5 for agriculture and fishery workers, 4 for trade workers, 3 for machine operators, 2 for elementary occupation and score 1 was given for unemployed persons.

Education of the head of the family

Similarly, education of the head of the family was inquired for and scored accordingly in descending order ranging from 1-7, so that the maximum score 7 was given for those with honors, followed by graduates (6), intermediate (5), high school (4), middle school (3), primary school (2) and lastly illiterates (1).

Income of the family

Likewise, another field that is family income was required to complete the questionnaire. This was scored in a manner so that the highest score, 12, was given for the family having monthly income of >199862 Indian rupees. Moreover, score 10 was given for the family having monthly income of 99,931-199,861, score 6 to those having income of 74,755-99,930, score 4 for the family with income 49,962-74,755, score 3 to those with income of 29,973-49,961, score 2 for the family having monthly income of 10,002-29,972 and finally score 1 was given to the family with monthly income of rupees <10,000. The total score obtained after adding the individual scores from all the three fields as mentioned earlier will indicate the socioeconomic class to which the patient belong. Simplifying the fact, a total score of 26-29 indicate the patient belong to the upper socioeconomic class, score of 16-25 indicate upper-middle socioeconomic class, 11-15 lower-middle socioeconomic class, 5-10 upper-lower socioeconomic class and a total score of <5 indicates that the patient belong to the lower socioeconomic class.

Case selection criteria

Diagnosed cases of sciatica were randomly selected and included in our study with following criteria:

Inclusion criteria

Patients irrespective of the gender, patients complaining of radiating shooting pain from back to anterior thigh muscles, posterior thigh muscles, buttock, calf muscle, posterolateral or anterolateral foot, ankle, toe, patients between 20 to 65 years of age.

Exclusion criteria

Patients who were non-cooperative; traumatic, infective, neoplastic conditions of spine; pregnancy; any chronic systemic illness, such as chronic liver disease, chronic kidney disease, cardiac illness, pulmonary disease, diabetes mellitus, hypertension, mental illnesses; radiologically evident cases of spinal injury/deformity/ disease, etc.; blood dyscrasias.

RESULTS

Results of the study can be summarized in tabular form (Table 1) and Figure 1 given below.

Table 1: Distribution of 60 sciatica patients as per socioeconomic status.

Socioeconomic status	Number of patients	Percentage
Upper	5	8.33
Upper middle	22	36.67
Lower middle	21	35
Upper lower	8	13.33
Lower	4	6.67

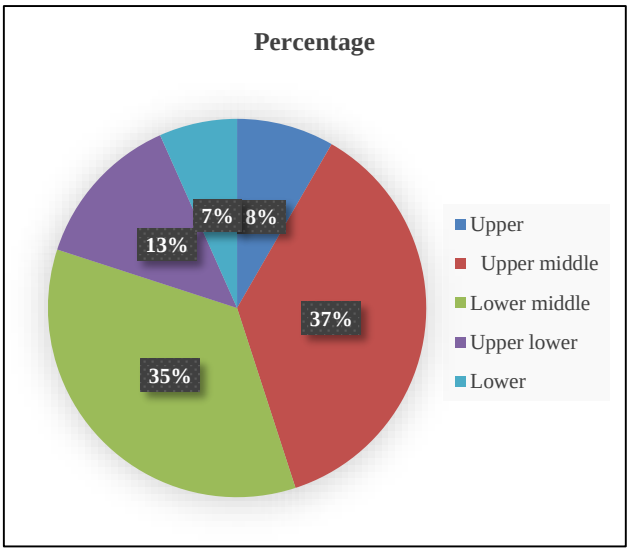

Figure 1: Percentage of sciatica cases versus socioeconomic status.

Evidently Figure 1 depicts that sciatica was more prevalent among the people belonging to middle socioeconomic class, including nearly 37% in upper-middle and 35% in lower-middle socioeconomic class.

DISCUSSION

Sciatica and low back pain is a most common health problem around the world and major cause of disability which affect performance at work along with general well-being. Recent studies found that the incidence of sciatic complaints is broadly variable, ranging from 1.6% to 43%.[4]

Current study observed the relation of clinical sciatica to socioeconomic status. A standard socioeconomic status scale known as Kuppuswamy's scale was used to classify the patients in different socioeconomic groups. The scale comprised of 5 classes with different score base on multiple factors. A score of 26-29 correspond to upper class, score in the range of 16-25 corresponds to upper-middle class, 11-15 to lower-middle class, 5-10 upper-lower and score of <5 corresponds to lower class respectively. For statistical analysis, recorded data was compiled and entered in a spread sheet and then exported to data editor of SPSS version 20.0.

From the Table 1 it is evident that out of 60 cases majority i.e., 22 patients (36.6%) were from upper-middle class of society, 21 patients (35%) from lower-middle class, 8 patients (13.8%) were from upper-lower class, 5 patients (8.6%) were from upper class and only 4 patients (6.9%) were belonging to lower class. This study interestingly sows that sciatica is more common among middle class and least common in lower socioeconomic group.

Limitation of the study is that it was done on a small sample size of the population mostly confined to a limited area surrounding the research institute and only studied the cases from Kashmir region. So, in order to make it clearer and more authentic the similar type of study is needed in multiple centers at national or international level.

CONCLUSION

From this study it has been inferred that sciatica is more common in middle socioeconomic class followed by upper and lower socioeconomic class respectively. Although the study was based on observing a small sample size it may however prove beneficial for future research in understating the relation between sciatica and socioeconomic status.

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Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Pearce J. A brief history of sciatica. Spin Cord. 2007;45:592-596.
2. Wilby MJ, Hopkins C, Bedson E, Howlin S, Burnside G, Conroy EJ, et al. Nerve root block versus surgery (NERVES) for the treatment of radicular pain secondary to a prolapsed intervertebral disc herniation: study protocol for a multi-centre randomised controlled trial. Trials. 2018;19:1-7.
3. Kumar M. Epidemiology, pathophysiology and symptomatic treatment of sciatica: a review. Int J Pharm Bio Arch. 2011;1051-6.
4. Stafford MA, Peng P, Hill DA. Sciatica: a review of history, epidemiology, pathogenesis, and the role of epidural steroid injection in management. Br J Anaesth. 2007;99(4):461-73.
5. Euro U, Heliövaara M, Shiri R, Knekt P, Rissanen H, Aromaa A, et al. Work-related risk factors for sciatica leading to hospitalization. Sci Rep. 2019;9(1):6562.
6. Frymoyer J. Lumbar disc disease: epidemiology. Instr Course Lect. 1992;41:21723.
7. Frymoyer JW. Back pain and sciatica. N Engl J Med. 1988;318:291-300.
8. Koes BW, van Tulder MW, Peul WC. Diagnosis and treatment of sciatica. Br Med J. 2007;334(7607):1313-7.
9. Saleem SM. Modified Kuppuswamy socioeconomic scale updated for the year 2020. Indian J Forens Community Med. 2020;7(1):1-3.

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