Original Article

Association of sciatica with patients' height

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Objective
To correlate sciatica with patients' height.
Patients and Methods
This descriptive cross sectional study was conducted at Military Hospital Rawalpindi from October 2005 to April 2006. One hundred patients presenting with either unilateral or bilateral sciatica were studied. Their height, weight, age and gender were recorded.
Results
It was seen that sciatica was most common in patients whose height was in the range of 171-190 cm.
Conclusion
Sciatica is more common in tall people. (Rawal Med J 2012;37:360-361).
Key Words
Sciatica, bilateral sciatica, sciatic neuralgia.

INTRODUCTION

The term "sciatica" refers to the pain along the path of this nerve. Pain radiates down the posterior or lateral aspect of the leg and is often associated with numbness or paresthesia. It may be aggravated by coughing, sneezing or the Valsalva maneuver.[1] The most common cause of sciatica is a herniated intervertebral disc, which occurs most commonly between the ages of 30 and 55 years.[2-5] It has been reported that there is a positive association between being tall and low back pain.[6] In a study it was found that men with heights of 180 cm or more were more prone to develop low back ache.[7] The aim of this study was to determine the correlation of height with sciatica.

PATIENTS AND METHODS

This descriptive study was carried out at Department of Radiology, Military Hospital Rawalpindi for a period of 6 months, from October 2005 to April 2006. The sampling technique was non probability purposive. One hundred voluntarily participating patients were selected, irrespective of gender. All patients presented with sciatica, either unilateral or bilateral. Those who were bed ridden or were suffering from trauma and chronic debilitating diseases were excluded from the study. Patients' height (cm), age, gender, and weight (kg) were recorded.

RESULTS

As the institution caters mostly to military personnel, most of the patients were male; 67 were males and 33 females. Age of patients was between 20-70 years (Mean 41.45±9.48).

Height was between 150 cm-190 cm (Mean 170.47±9.6). Maximum number of patients, (41%) fell within the height bracket of 171-180 cm.

Table 1. Percentage of patients in each height bracket.

	Height bracket	Percentage
1	150-160 cm	14%
2	161-170 cm	21%
3	171-180 cm	41%
4	181-190 cm	24%

It was also observed that left sided sciatica was more common than right sided sciatica with 54% of the patients complaining of pain along the left sciatic nerve path. 38% patients had right sided sciatica, while 8% had bilateral sciatica.

DISCUSSION

Lifetime prevalence of sciatica in developed countries is estimated at 84% in the general population.[8] One particular risk factor is the height of a patient. Studies considering association between height and lower back pain or sciatica report both positive and negative results.[9] In my study, maximum number of patients presenting with

sciatica (41%) belonged to 171-180 cm height bracket (mean 170.47±9.6). According to one study the average height of adult Indian men and women was 165 and 152 cm respectively, however the variation in height was subject to the socioeconomic status.[10] In another study, odds ratio (OR) for sciatica associated with 'height >180cm' was 3(95% CI 1.4-6).[11] A recent study reported a positive association between being tall and low back pain.[6]

Possible proposed mechanism is role of lumbar disc height. Natarajan suggests that discs with a smaller area to height ratio were more prone to disc prolapse leading to sciatica.[11] An anthropometric study showed that in taller patients, abnormality of facet joints in lumbar disc prolapse was more common.[12] Tall people might also be more exposed to strains that lead to injury or disease. A study on aid posture among female Japanese cooks showed that the improvement of subjective discomfort through a standing aid was more effective for taller subjects.[13]

In study on Chinese middle aged women reported no association between excessive weight, tall stature and an increased risk of sciatica and a high waist to hip ratio was associated with a lower risk of severe low back pain.[14] In yet another international study, it was suggested that being tall is a predictor for back surgery.[15] More males were affected than females in lumbar disc herniations and prolonged bent forward working posture may be implicated.[16] Maximum number of patients (38%) was in their 4th decade of life in our study. Only one patient was in her 7th decade of life, as reported in other studies.[16]

CONCLUSION

Taller patients were more prone to develop sciatica.

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