

Leg cramps among older men and women

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Objective: To compare the occurrence of leg cramps in older men and women.

Methodology: This observational study was conducted at University of Lahore from April 2019 to June 2019 and included 195 men and women of age ≥ 50 years. A cramp questionnaire was used to assess onset, location, frequency, duration, aggravating and relieving factors. Severity of pain was measured by using visual analogue scale. Data analysis was done by using SPSS version 16.0.

Results: Out of 195 patients, 98 were females and 97 males. There was significant difference between muscle cramps in men and women

($p=0.011$). We found that 69.4% females and 51.5% males experienced cramps weekly. 40.8% females experienced cramps in calf muscle and 40.8% females and 28.9% males experienced cramps at night that were aggravated by sleep and rest. 32.7% females and 20.6% males used different measures to get relief other than the medicines. The pain associated with cramps was most commonly moderate to severe.

Conclusions: Leg cramps are more common in old age females than the males. (Rawal Med J 202;45:396-398).

Keywords: Muscle cramp, nocturnal leg cramp, pain.

INTRODUCTION

Leg cramps are involuntary and painful contraction of calf muscles. Palpable knots are observed in the muscles having cramps. Leg cramps occur commonly in older age.¹ In a study that included older people, the lifetime prevalence of muscle cramps in sedentary but healthy people was 30-50%.² Another study showed that 50% outpatients had resting muscle cramps.³ The risk factors include pregnancy, age, exertion, exercise or physical activity, water electrolyte imbalance, salt deficiency, renal dialysis, venous and arterial disease and neuropathies, drugs and deep vein thrombosis.^{4,5}

The pain of contractions is very sharp and of high intensity.⁶ Muscle weakness leads to the decreased physical activity and may leads to the cramps of the leg muscles.⁷ They are more severe at night causing the sleep disturbance.⁸ Magnesium and Multivitamins are helpful in treating them.⁹ Calf muscle cramps at night are associated with neurological dysfunction.¹⁰ Nocturnal leg cramps (NLC) increases with age, mental stress, lower education, unemployment and shorter sleep duration.¹¹ Cramps are commonly associated with sports, exercises and physical activities.^{12,13}

For the treatment, any disorder that participates in

causing them should be initially identified and must be treated as soon as possible. Patients are advised to take the general precautionary measurements to improve the quality of life and peaceful environment to sleep. Alcohol and the beverages containing caffeine should be avoided.¹⁴ Stretching the affected muscle abort cramps. Diabetes that leads to many complications such as neuropathy leads to the higher rate of muscle cramps that is based on the peripheral nerve hyper-extensibility.¹⁵ The aim of this study was to compare the occurrence of leg cramps in older men and women.

METHODOLOGY

This observational study was conducted at University of Lahore from April to June 2019 and included 195 participants of age ≥ 50 years. A cramp questionnaire was used. Severity of pain was measured by using VAS. All the participants were asked to sign an Informed consent.

Statistical Analysis: SPSS version 16.0 was used for data analysis. Final outcomes were compared between the groups by applying chi-square test. $p \leq 0.05$ was taken as significant.

RESULTS

Out of 195 participants, 98 were females and 97

males. Mean ages was 59.44 ± 7.175 years (range 50-80). Out of 195 participants, 118 experienced cramps; 68 females and 50 males experienced leg cramps ($p=0.011$) (Table 1).

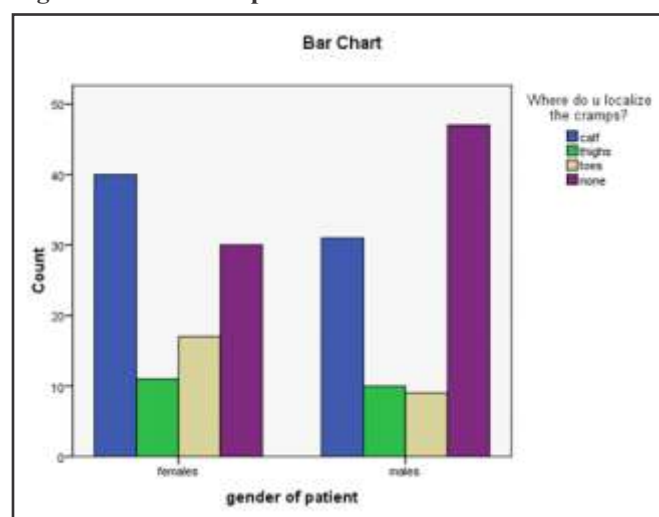
Table 1. Gender of patient experiencing leg cramps.

	Cramps In last 3 months			P value
	Yes	No	Total	
Females % within gender	68 69.4%	30 30.6%	98 100.0%	P=.011
Males % within gender	50 51.5%	47 48.5%	97 100.0%	
Total Count % within gender	118 60.5%	77 39.5%	195 100.0%	

Table 2. Gender of patient and when they experience cramps.

	When do you have the cramps?				Total	p
	Day	Night	Both day and Night none			
Females % within gender	13 13.3%	40 40.8%	15 15.3%	30 30.6%	98 100.0%	.086
Males % within gender	10 10.3%	28 28.9%	12 12.4%	47 48.5%	97 100.0%	
Total % within gender	23 11.8%	68 34.9%	27 13.8%	77 39.5%	195 100.0%	

Fig. Location of cramps.



Cramps in calf muscle were experienced by 40.8% females (Figure). Cramps at night were aggravated in 40.8% females and 28.9% males (Table 2). 32.7% females and 20.6% males used different measures to get relief other than the medicines. The pain associated with cramps was most commonly

reported as moderate to severe by 19% of patients who experienced cramps according to visual analogue scale.

DISCUSSION

A study of 516 patients concluded that muscle cramps were very common in patients of primary care and many reported cramps related sleep disturbance.¹⁶ Previous studies showed gender related differences in occurrence of muscle cramps.¹⁷ Another study included 243 participants and concluded with the presence of muscle cramps with 48% and 60% in males and females, respectively.¹⁸

The current study was to compare the leg cramps in older men and women. We found that there was significant difference in presence of muscle cramps among older men and women. Chi-square was applied for association of gender.

The current study shows that 52 participants got relief from the cramps by other means like using counter pain medicine, by using medicine prescribed by their physicians. The other means might include any physical activity that was walking, applying pressure or stretching of the muscle having cramp.⁶

A study conducted by Edouard et al concluded that the muscle cramps were more common in calf muscles.¹⁹ In our study, 71 out of 118 participants experienced cramps in calf muscles. The percentage was 40.8% in females. Grander et al conducted a systematic review to assess the muscle cramps associated with sleep and their risk factors. They concluded that nocturnal cramps were very common and they were highly associated with the sleep disturbance.¹¹

Muscles cramps were also aggravated by prolonged standing.¹⁹ The current study shows that 17 participants experience cramps while standing. We also noted that most participants experienced cramps weekly and only for few minutes and 29.6% females experienced cramps weekly.

CONCLUSION

Leg cramps are more common in females than the males.

Authors Contributions:

Conception and Design: Azka Asghar

Collection and assembly of data: Azka Asghar

Analysis and Interpretation of data: Azka Asghar

Drafting of article: Azka Asghar

Critical Revision of article for important intellectual content: Ashfaq Ahmad

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