

PROFILE OF PATIENTSWITH CARPAL TUNNEL SYNDROME

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ABSTRACT

Background: Carpal Tunnel Syndrome (CTS) is the most common form of median nerve neuropathy and about 90% of all types of neuropathy. This syndrome is also one of the most common hand disorders associated with work. This study aimed to demonstrate the epidemiological characteristics in patients treated for carpal tunnel syndrome in a general hospital.

Objective: To report clinical and epidemiological characteristics of patients with CTS in outpatient care unit of a general hospital.

Methods: This is a retrospective study. All patients who were treated in outpatient care unit in January-September 2021.

Results: We obtained data from 44 patients in outpatient care unit. The ratio of men and women was 1:3.4. The mean of age was 49 years old. Bilateral manifestation is more common than unilateral (59.1%).

Conclusion: Female with bilateral symptoms of median nerve neuropathy was the most common characteristic in CTS patient's profile.

Keywords: carpal tunnel syndrome, profile, patient, epidemiology

INTRODUCTION

Carpal tunnel syndrome (CTS) is the most common nerve entrapment syndrome, at least 3% -6% of the adult population.¹ The prevalence rate of CTS is very high in workers, reaching 73%.² The diagnosis of this syndrome is mainly based on clinical examination supported by supporting examinations.^{3,4} Symptoms are associated with compression of the median nerve, which usually causes pain, numbness, and tingling sensation.¹ Although the cause is often undetermined, the etiology can be due to trauma, repetitive motion, obesity, arthritis, certain diseases, and pregnancy.^{1,2} The incidence of CTS is up to 276:100,000 per year with a prevalence of up to 9.2% in women and 6% in men.² Generally occurs bilaterally with the most age 40 to 60 years.⁵

The purpose of this study was to report and demonstrate clinical and epidemiological characteristics of patients with CTS in outpatient care unit of a general hospital

Methods

This is a retrospective and record-based study. The patients were identified from the medical records, starting from January to September 2021. The inclusion criteria of our study was patients with CTS and had been examined by electromyography (EMG). Consent was sought for accessing the medical records. Patients who incomplete medical records were excluded. The following information was noted such as the demographic patient characteristics (age and sex) and clinical presentation (unilateral or bilateral). All data were analyzed using SPSS 25.

Results

We identified 44 patients who met inclusion and exclusion criteria. All patients had been diagnosed clinically and also by EMG. We found 10 (22.7%) was male and 34 (77.3%) was female. The ratio of men and women was 1:3.4. The mean of age was 49 years old. The clinical presentation of CTS bilateral; 26 (59.1%) and unilateral 18 (40.9%).

Table 1. Demographic and Clinical Data

Population	n(%)	Mean
Sex		
Male	10(22.7)	
Female	34(77.3)	
Age		49
Side		
Unilateral	18(40.9)	
Bilateral	26(59.1)	

Discussion

Carpal tunnel syndrome is the most common peripheral neuropathy and diagnosis based on a combination of clinical signs and symptoms and electromyographic findings.^{6,7}The prevalence in the United Kingdom is 70 – 160 cases per 1000 population.⁸ This study supported the prevalence of carpal tunnel syndrome in female was greater than male. The risk of acquiring this peripheral neuropathy increases after menopause; moreover, women are more often employed in occupations where there is greater risk of acquiring CTS, as well as housekeeping duties that predispose to the same exposure.⁹ The mean age of this study likely supported the previous study. That study had found age >40.5 years (area under the curve [AUC]=0.81, 77% sensitivity and 75% specificity) is a very important risk factor for CTS in obese females.¹⁰ It has been previously found that the age of 41–60 years is an independent risk factor for CTS.¹¹The most common clinical presentation was bilateral. There was study that reported patients with bilateral complaints had symptoms for about three years, while in patients with unilateral symptoms the duration was about one year at the time of the first visit. Since patients in the latter group developed symptoms in the contralateral hand with time, that study assumed that bilaterality may be time-dependent. Unfortunately, the records were not very precise about the duration of symptoms, so that a definite conclusion could not be drawn.¹²

Conclusion

Female with bilateral symptoms of median nerve neuropathy was the most common characteristic in CTS patient's profile.

Conflict of Interest

The authors affirm no conflict of interest in this study.

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