



Awareness of Carpal Tunnel Syndrome – A Survey

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ABSTRACT

Aim of the study is to create an awareness regarding Carpal Tunnel Syndrome and to raise awareness regarding Carpal Tunnel Syndrome and to shed light on the symptoms of CTS amongst the population. Carpal tunnel syndrome which is caused due to the stress applied on the median nerve is a major medical condition caused due to the extensive usage of gadgets. Most people are unaware of this Syndrome and ignore certain symptoms such as: tingling in middle and thumb fingers, numbness and burning in fingers, and so on. This survey is done to enlighten people about how these symptoms are actually signs pertaining to the cause of CTS. CTS is most common amongst those who work in fields include computer work, work with gadgets and prolonged exposure to gadgets. This survey is done to raise awareness regarding CTS amongst the population.

Keywords: Tunnel Syndrome, Medial Nerve, Entrapment Neuropathy.

INTRODUCTION

First described by Paget in 1854, Carpal Tunnel Syndrome (CTS) remains a puzzling and disabling condition commonly presented to Rheumatologists and Orthopaedic Hand clinicians.¹ It is a compressive neuropathy, which is defined as a mono neuropathy or radiculopathy caused by mechanical distortion produced by a compressive force^{1,4}. The American Academy of Orthopaedic Surgeons (AAOS) Clinical Guidelines on the Diagnosis of CTS defines it as a symptomatic compression neuropathy of the median nerve at the level of the wrist.¹ CTS is the most well-known and frequent form of median nerve entrapment, and accounts for 90% of all entrapment neuropathies.¹ It is a neuropathy caused by entrapment of the median nerve at the level of the carpal tunnel, delimited by the carpal bones and by the transverse carpal ligament. Physiological evidence indicates increased pressure within the carpal tunnel, and therefore decreased function of the median nerve at that level.^{1,8,10}

It is characterised by sensory and, less commonly, motor symptoms and signs in the peripheral distribution of the median nerve. Known causes include trauma, diabetes, rheumatoid arthritis, acromegaly, hypothyroidism and pregnancy². It is a cause of pain, numbness, and tingling in the upper extremities and an increasingly recognised cause of work disability.^{5,6}

It has been falsely believed that CTS, is merely a secondary disorder to major disorders such as hormonal imbalance disorders, or as a neurological disorder⁷ which prevails amongst only a restricted population but has been neglected to be observed and perceived as a lifestyle disorder in general population. On analysing various literature it was noted that CTS is termed as an occupational disorder as, certain occupational activities also carry an increased risk of CTS, like occupations involving forceful gripping. But low force work for prolonged periods of time like exposure to computers or gadgets like mobile phones, video game consoles, laptops, etc, also pose a threat to the compression of median nerve causing CTS.

As the world has moved towards major technological development, the usages of gadgets have almost become a survival necessity as it ensures not only connectedness to the world but also a medium of getting work done and entertainment. In such a world, most diseases are lifestyle related, CTS also falls under this category and it is high time people realise this reality.

A systematic review of studies³ was performed bringing to light how the usages of computers or mice are a threat and lead to CTS on unregulated usage. In that review published in the year 2008, it was stated as to how the unregulated prolonged usage is categorised as low force work and such low force work cause compressive neuropathy in the median nerve leading to constant numbing of the hand, also leading to burning and tingling in the fingers.



This study was conducted amongst a spectrum of people of different occupations; mostly focusing on students as prolonged gadget usage is more prevalent amongst that category of the population. It was conducted to bring to light and create awareness that Carpal Tunnel Syndrome is not only prevalent amongst those who do high intensity work but also amongst those who spend prolonged time on gadgets and it is a lifestyle disorder and not only an occupational disorder.

MATERIALS AND METHODS

This was a survey based study and was conducted in an online forum, Survey Planet. The survey was circulated amongst people of various age groups and people of varied occupations. A sample of 102 people was taken for this study.

The questionnaire consisted of 17 questions firstly asking whether or not they use gadgets and if they do, for how long. Then a series of questions was asked pertaining to the experience of certain symptoms such as tingling of fingers, numbness in fingers, etc was asked to provide an insight into the signs of CTS. Then their knowledge regarding the neural effects of prolonged usage of gadgets was questioned to see whether they were aware that there are neurological effects as well. The questionnaire then proceeded to question them about their knowledge about the occurrence of CTS and their susceptibility to it.

Two questions regarding the remedies for CTS was also asked as this survey was circulated amongst a varied age group and there might have been people who are already undergoing treatment for CTS. These questions also helped in educating people who were unaware of the disorder of its treatments. At the end of the questionnaire, it was asked as to whether this survey was helpful to understand the susceptibility to CTS and whether it raised awareness.

RESULTS AND DISCUSSIONS

FIGURE 1

10. Are you aware of Capal Tunnel Syndrome?

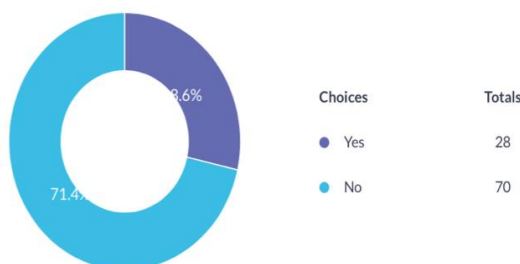


FIGURE 2

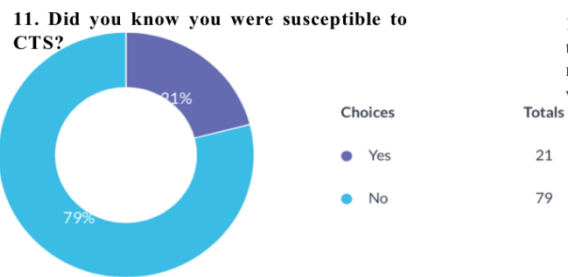
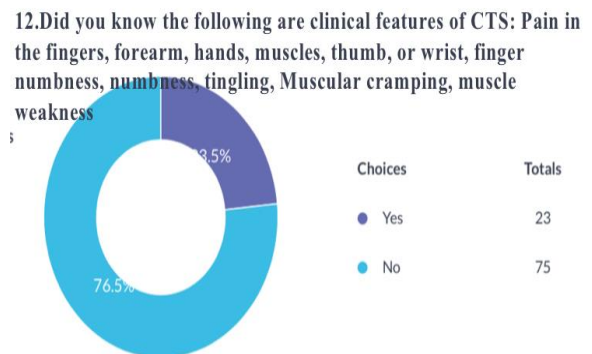


FIGURE 3



Carpal Tunnel Syndrome is associated with repetitive activity of the hand and wrist.[9] CTS, is caused as a result of increased pressure in the Carpal Tunnel and this increases ischemia or compression of the median nerve, giving rise to tingling and numbness of the fingers, burning sensations and difficulty in motility of fingers.

It was noticed that most of the people who took the survey were students or people working in the IT field. When analysed their usage of gadgets it was observed that most people used gadgets for more than 5 hours a day. Due to such prolonged usage nearly 50% the people experienced the symptoms of CTS such as tingling of fingers, pain in their forearms, etc.

When asked about the effects of prolonged usage only 42% of the people opted for the option that it may cause a loss in motor and sensory neuron function and most people were unaware that it had a neurological impact.

Nearly 72% of the population were unaware about Carpal Tunnel Syndrome, thus indicating the necessity for raising awareness about this disorder. When asked whether they knew they were susceptible to it, most people were shocked that there was a possibility of them being susceptible to such a disorder and as expected nearly 79% of the population accepted to be unaware about their susceptibility to this disorder.

The people were then asked whether they knew that the previously mentioned symptoms were actually symptoms of CTS, and nearly 76.5% of the people were unaware about the symptoms being those of CTS. Thus indicating

that most people have been neglecting these symptoms as mere muscle pulls or nerve pulls or sprains but not as a damage or compression of a vital nerve. People were also asked if they were affected by CTS, and nearly 85 people out of the 102 people answered that they suffer from CTS, most people answered on the basis of experiencing the causative symptoms while a few (7 people) agreed to being affected and to be undergoing medication for the same. It was then asked what method of medication people take and most people opted for methods without drugs (e.g.: rotating of wrists).

From the above obtained results, it comes to notice that most people are unaware of Carpal Tunnel Syndrome and those who are aware seem to have brushed the symptoms of as a mere muscle pain instead of paying heed to the nitty-gritty's of these symptoms as they might be an indication to a minor stage of CTS. If these symptoms are left unnoticed then it might lead to further compression of the median nerve leading to a muscle apathy, which is complete loss of function of those muscles, and in most cases even after performing surgeries it is near to impossible to retrieve back the functionality of the fingers.

CONCLUSIONS

From the above data it is observed that the majority of the population has been rather nonchalant regarding the susceptibility to Carpal Tunnel Syndrome. The purpose of this survey was to establish proper understanding about CTS amongst the population and enlighten them as to how this is not something that is pertaining only to the occupation one does but also to the choices one makes when it comes to usage of gadgets. The above results show that most people found this survey useful and have come to acknowledge this. Though CTS is a lifestyle disorder, it can be curbed by not succumbing to excessive usage of gadgets and being more cautious.

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