

CASE REPORT ON CARPAL TUNNEL SYNDROME

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Abstract

Carpal tunnel syndrome is the most common musculo skeletal disorder in adults but remains a very rare condition in children.[1] CTS is a disease caused by excessive pressure on the median nerve passing through the wrist carpal tunnel. Lysosomal overload diseases (mucopolysaccharidosis and mucopolipidosis), anatomical abnormalities, trauma and familial forms are the most frequent aetiologies. [2]No studies report idiopathic forms. We present the case of a 46 year old female patient with c/o pain in the hands ,wrist and forearm. Presenting with bilateral carpal tunnel syndrome more predominant and deficient on the right, confirmed by ultrasound and electromyography (EMG).The patient underwent with treatment of corticosteroids and anti-inflammatory drugs[3] ,no complications were observed. Presenting with bilateral carpal tunnel syndrome more predominant and deficient on the right, confirmed by ultrasound and electromyography (EMG).[4]

Keywords: carpal tunnel syndrome, numbness, case reports.

Introduction

Carpal tunnel syndrome [CTS] is a common neurological disease with the prevalence of 2.7%-5.8% in general population.It is reported to be the most common entrapment neuropathy seen in a hospital setting. It is also common in people working in a variety of professions. CTS is caused by frequent, repetitive movements of the upper limb, frequent bending and strain of the elbow, and hand-arm vibrations. Dentists, dental hygienists and dental assistants, soldiers, laboratory workers, and secretaries are some of those at risk due to their occupation.The disease is thought to be progressive been linked with advancing age,neurophysiological severity. [5] If CTS is not treated, the patient may develop pain, numbness, loss of

strength. CTS can be treated with surgical decompression in the later period. Dentists, dental hygienists and dental assistants, soldiers, laboratory workers and secretaries are at risk due to occupationally. For this reason, we found it appropriate to present a case with carpal tunnel syndrome. We present a case of 46 years old female patient with numbness, weakness in hands.

Case

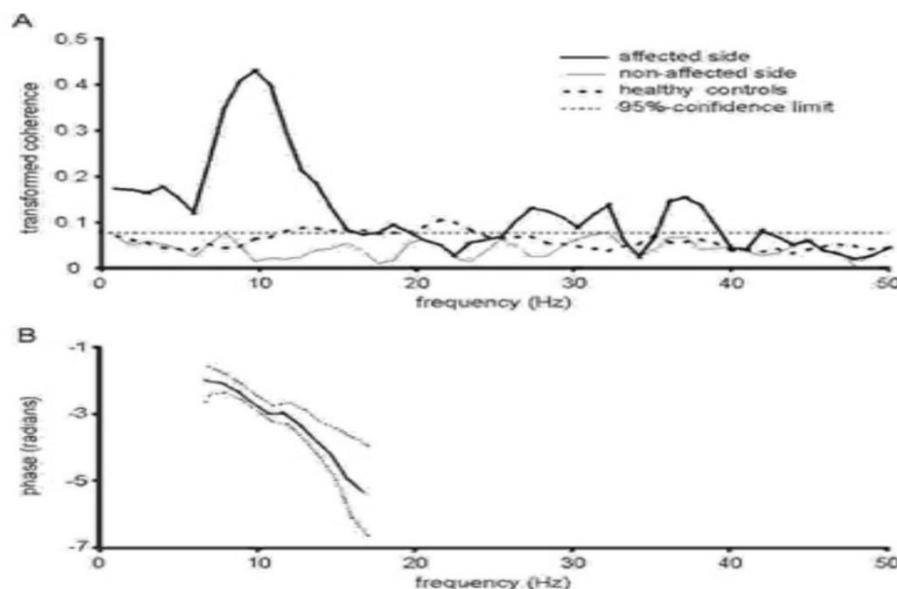
A 46 year female patient admitted in orthopedic with chief complaints of pain in the hands ,wrist, forearm,numbness and weakness.Her blood pressure was 130/80,pulse was 56 bpm,temp was 98.6 F.

In the complete blood cell count ,haemoglobin was 9.0g/dl.

Electromyography evaluates the electrical impulses from the muscle fibers.

Findings on the right been more evident, with bilateral advanced carpal tunnel syndrome (sensory and motor axonal degeneration and segmental demyelination) were observed by EMG (Electromyography), also known as ENMG (Electroniromiography).

The case was evaluated with the results and bilateral carpal tunnel syndrome was diagnosed. Orthopedic planned operation for the right wrist. Because of the presence of bilateral carpal tunnel syndrome at the advanced stage, it was suggested that the wrist does not perform repetitive wrist movements.



Discussion

Diabetes, rheumatoid arthritis, hypothyroidism, and pregnancy can cause CT. Gender, age, body mass index and thyroid function affect CTS development. Female gender has been reported as a risk factor for CTS. They reported recurrent CTS by reason of connective tissue diseases such as gout. CTS can be caused by a variety of causes, including inflammatory or non-inflammatory arthropathy, wrist trauma or fractures, diabetes mellitus, obesity, hypothyroidism, pregnancy and genetic factors. The risk of CTS increases by progressive age at premenopausal women.[6]

Carpal tunnel syndrome [CTS] is an entrapment neuropathy caused by compression of the median nerve as it travels through the wrist's carpal tunnel. It is the most common nerve entrapment neuropathy, accounting for 90% of all neuropathies. Early symptoms of carpal tunnel syndrome include pain, numbness, and paresthesias. These symptoms typically present, with some variability, in the thumb, index finger, middle finger, and the radial half (thumb side) of the ring finger. Pain also can radiate up the affected arm. With further progression, hand weakness, decreased fine motor coordination, clumsiness, and thenar atrophy can occur.

In the early presentation of the disease, symptoms most often present at night when lying down and are relieved during the day. With further progression of the disease, symptoms will also be present during the day, especially with certain repetitive activities, such as when drawing, typing, or playing video games. In more advanced disease, symptoms can be constant.

For the diagnosis of CTS disease, EMG evaluates the median nerve and assists for the diagnosis.[7] Carpal tunnel syndrome should be operated. The general approach is to remove the median nerve pressure in the trap area by the surgical procedure. CTS can be improved by treatment of underlying disease such as pregnancy and mixoedem. Patients may not have surgery if the symptoms are mild for CTS. Medical treatment is given for CTS if there is median paralysis in the future.[8-9] Complication rarely develops after CTS operation. However, a case with postoperative epidermal inclusion cyst was reported. In another case, they reported a neuroma following the median nerve injury after operation.[10]

Result

At the end of 1 month patient got complete relief from her complaints, and the findings of EMG becomes to normal.

Conclusion

The treatment given here aimed at release of complaints. The state of the disease was acute due to which complete relief was achieved. The given prognosis is said to be rational for the patient .

In conclusion, acute CTS is common ; thus, when patients present with acute onset of pain and swelling in the wrist, thrombosis of a PMA should be suspected. Sonographic evaluation of the wrist is a fast, relatively inexpensive, non-invasive and effective method for assessing the median nerve abnormalities and atypical vascular structures within the carpal tunnel.

Prevention: There are no proven strategies to prevent carpal tunnel syndrome, but you can minimize stress on the hands and wrists with these methods:

Reduce your force and relax your grip. If your work involves a cash register or keyboard, for instance, hit the keys softly. For prolonged handwriting, use a big pen with an oversized, soft grip adapter and free-flowing ink.

Take short, frequent breaks. Gently stretch and bend hands and wrists periodically. Alternate tasks when possible. This is especially important if you use equipment that vibrates or that requires you to exert a great amount of force.

Watch your form. Avoid bending your wrist all the way up or down. A relaxed middle position is best. Keep your keyboard at elbow height or slightly lower.

Improve your posture. Incorrect posture rolls shoulders forward, shortening the neck and shoulder muscles and compressing nerves in the neck. This can affect the wrists, fingers and hands, and can cause neck pain.

Change your computer mouse. Make sure that your computer mouse is comfortable and doesn't strain your wrist.

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