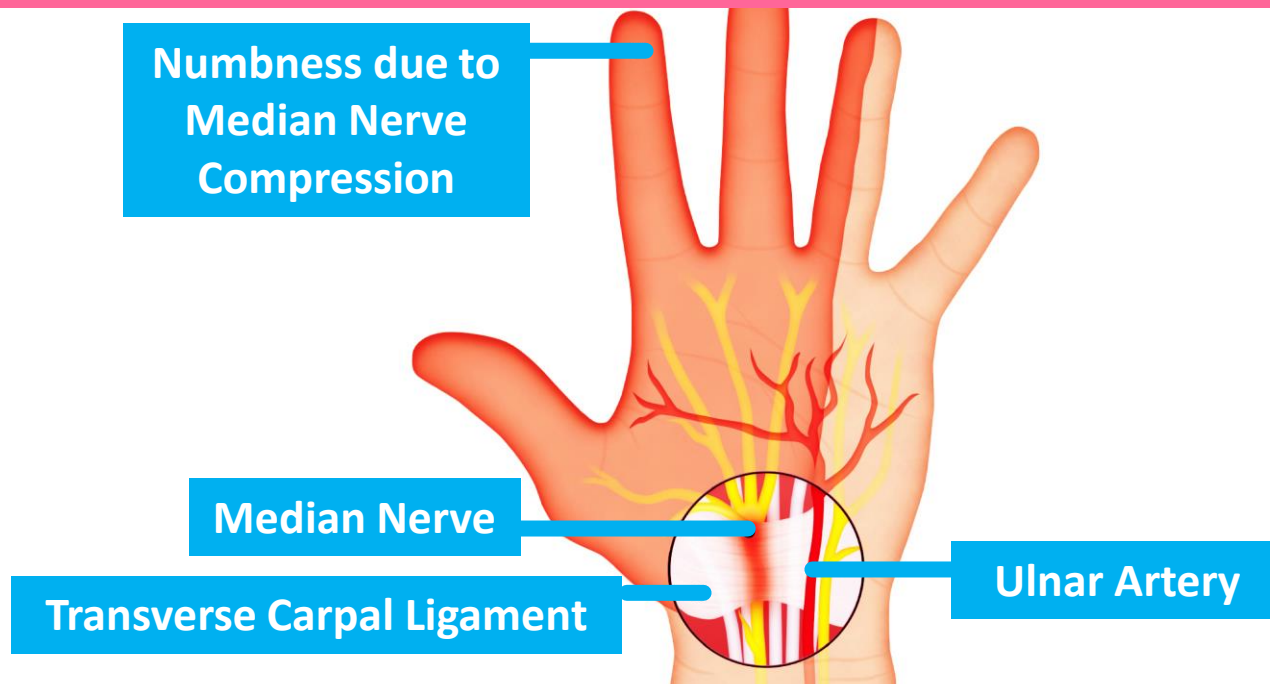


Carpal Tunnel Syndrome



RISHACADEMY

educate yourself to empower yourself

www.rishacademy.com

Introduction

- This is the commonest and best known of all the nerve entrapment syndromes.
- In the normal carpal tunnel there is barely room for all the tendons and the median nerve; consequently, any swelling is likely to result in **compression and ischaemia of the nerve**.
- Usually the cause eludes detection; the syndrome is, however, common in women at the menopause, in rheumatoid arthritis, in pregnancy and in myxoedema.
- The usual age group is 40–50 years.



Introduction

- Female: Male = 8:1
- Common in perimenopausal women (40-50yrs).
- The majority of cases of carpal tunnel syndrome are idiopathic.
- It is however, associated with diabetes, thyroid disorders, alcoholism, amyloidosis, inflammatory arthritis, pregnancy and obesity.



Causes

CARPALSLOT

C

Colle's fracture

L

Long term steroid

A

Acromegaly

S

Sugar (Diabetes)

R

Rheumatoid arthritis

L

Low T3 &T4
(Hypothyroidism)

P

Pregnancy

O

Osteoarthritis ,Obesity

A

Amyloidosis

T

Trauma



RISHACADEMY

educate yourself to empower yourself

www.rishacademy.com

Clinical Features

1. Pain and paresthesia over the median nerve distribution
2. Pain increase in the night
3. Tingling
4. Numbness
5. Hanging the arm over the side of the bed to relieve the pain
6. Affects the both hands or dominant hand
7. Wasting of thenar muscles- Ape thumb
8. Claw hand



Clinical Features



**Wasting of Thenar
Muscles - Ape thumb**



RISHACADEMY

educate yourself to empower yourself

www.rishacademy.com

Examination

- Wasting of the thenar eminence is visible in chronic severe cases, and there is sometimes weakness of the abductor pollicis brevis.
- **The tests for carpal tunnel compression**
 1. Tinel's – percussion over the carpal tunnel
 2. Phalen's test – reproduction of paraesthesia with full wrist flexion.
- More recently, Durkin's compression test, in which digital pressure over the carpal tunnel reproduces the symptoms, has been shown to be highly sensitive and specific.

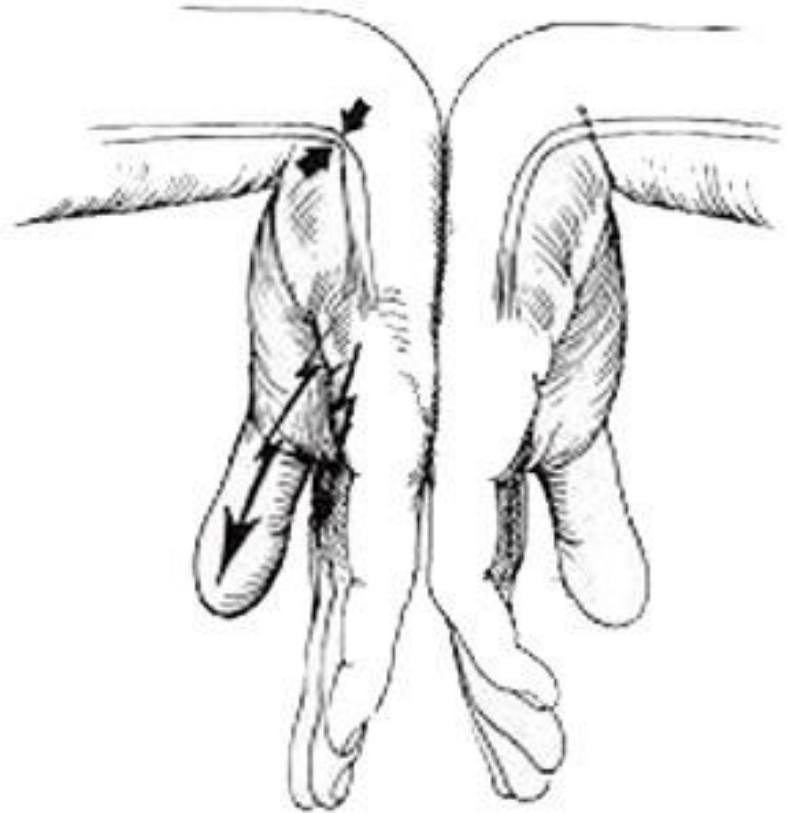


Examination

Tinel's Test



Phalen's Test



Investigations

- Electrophysiological studies may confirm the diagnosis, with evidence of slowing of nerve conduction through the carpal tunnel.
- Relevant biochemical tests to find the cause. (Hypothyroidism- T3/T4/TSH, Diabetes- Fasting blood sugar)



Differential Diagnosis

Radicular symptoms of cervical spondylosis may confuse the diagnosis and may coincide with carpal tunnel syndrome.



Treatment

- Light splints that prevent wrist flexion can help those with night pain or with pregnancy-related symptoms.
- Steroid injection into the carpal canal, likewise, provides temporary relief.
- Open surgical division of the transverse carpal ligament usually provides a quick and simple cure; this can usually be done under local anaesthesia.



Treatment

- The incision should be kept to the ulnar side of the thenar crease so as to avoid accidental injury to the palmar cutaneous (sensory) and thenar motor branches of the median nerve.
- Endoscopic carpal tunnel release offers an alternative with slightly quicker postoperative rehabilitation



Treatment- Summary

CARPAL TUNNEL SYNDROME MANAGEMENT

Operative management

- Surgery - Carpal tunnel decompression
- Open/ Arthroscopic
- GA/ Brachial plexus block/ Local
- infiltration
- Need to achieve blood less field

Non operative

- Night splints in extension (Pregnancy)
- Steroid injection

