

Carpal Tunnel Release by Open Technique

Introduction

Carpal tunnel is the space underneath the volar side of the wrist. There are muscles, tendons and median nerve running through. In situations, e.g. repetitive movement of the wrist, trauma of the wrist, rheumatoid arthritis, thyroid disease, diabetes myelitis, menopause, pregnancy, where the median nerve is being compressed within the carpal tunnel, patients may suffer from numbness, and tingling sensation of their hands. In turn, this may affect their daily activities.

Treatment Modalities

- Appropriate rest and activity modification
- Oral medication, e.g. anti-inflammatory drugs, diuretics, etc.
- Physiotherapy, e.g. ultrasound treatment. Occupational therapy, e.g. hand splint
- Surgery to relieve the carpal tunnel pressure and free the median nerve from pressure. This can be done through open surgery or endoscopic surgery.

Indication

- Failed conservative treatment
- Severe carpal tunnel syndrome

The Procedure

- The operation is usually done under local anaesthesia. If patient's condition is stable, she/he can be discharged on the same day
- A surgical incision is made in the palm and the carpal ligament is reached by cutting through the underlying tissue.
- The carpal ligament then cut under direct vision in order to relieve the carpal tunnel pressure

Risk and Complication

- Nerve can be damaged during the surgery causing numbness or neuroma
- Complex regional pain syndrome (CRPS)
- Pillar pain
- Post-operative infection
- Scar formation at the surgical incision site
- Stiffness
- Recurrence of symptom and it is usually due to incomplete release of the carpal ligament and revision surgery may be need
- Incomplete recovery and it is usually occurring when the presentation is at very late stage

After the Procedure

- Rest the wrist and prevent flexing the painful wrist can help to control inflammation and oedema
- Mobilize fingers and other joints of the upper limb can help to decrease oedema and enhance function

- Keep the wound dry and clean
- Take the prescribed pain killer for the wound pain
- If there is severe bleeding or purulent discharge from the wound, or persistent redness and swelling, seek medical advice promptly

Alternative Treatment

Conservative treatment using oral medication, physiotherapy and hand splint

Remarks

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. The actual risks may be different for different patients. During the operation, unpredictable condition may arise, and additional procedures may be performed if necessary. For further information, please contact your doctor.