

NEWCLIP-TECHNICS

INNOVATION MEANS MOTION



KEMIS®

CARPAL TUNNEL RELEASE SURGERY

- Minimally invasive, non-endoscopic surgical technique
- Outting of the transverse carpal ligament via retrograde route

RELEASE SURGERY OF THE CARPAL TUNNEL

Kemis[®] is an innovative instrument combining both the safety of the open release procedure and the clinical advantages of endoscopic surgery ^(1,2).

→ AN ERGONOMICALLY ENHANCED INSTRUMENT

- Ergonomic shape of the distal part, upper 1 and lower 2 curves designed for reducing risks of lesion of the anatomical parts when inserting the knife.
- The blade is an integral part of the knife design ⁽³⁾ and does not damage surrounding tissues.
- Secured cutting of the ligament reducing the risks of median nerve and flexor tendons lesion.
- Palmar aponeurosis preserved.

→ A SAFER TECHNIQUE

- A simple and reliable technique, almost no learning curve, reproducible results ^(1, 2, 3).
- Immediate visualisation of the ligament and distal division of the median nerve (thenar branch, digital nerves).
- Visual monitoring of the anatomic variations of the thenar eminence.
- The cutting edge of the blade is never in contact with the surrounding anatomical parts, thus avoiding unintentional lesion.

→ A MORE COST-EFFECTIVE TOOL

- Knife cost is optimized.
- Single use sterile knife.
- No need for endoscopy platform or dedicated ancillary.
- Quick implementation.
- Reduced operating time (5 10 minutes).

→ SIMPLER POSTOPERATIVE CARE

- > 1 2 cm short incision.
- No damage to the heel of the hand.
- Recovery time similar to that of endoscopic surgery after 21 days ^(4, 5, 6).

→ A MORE ECOFRIENDLY SOLUTION

- Single use: no multiple sterilization, optimized carbon footprint.
- The Kemis[®] knife is light weight (19,5g) and involves reduced costs of recycling.



SURGICAL TECHNIQUE

Minimally invasive, non-endoscopic surgical technique

Cutting of the transverse carpal ligament via retrograde route.

This surgical procedure is usually carried out using a loco-regional anaesthetic and with a tourniquet placed as proximally as possible on the upper limb.

STEP 1 ANATOMICAL LANDMARKS (1,2,7,8)



- The incision is performed so as to expose the distal part of the transverse carpal ligament and the thenar eminence.
- Two lines are drawn to mark the incision (1-2 cm). Their intersection determines its exact location.
- > The first line goes from the distal fold of the thenar eminence, with the thumb extended, to the top of the hypothenar eminence.
- The second line is drawn along the axis of the lateral edge of the 4th ray (ring finger) and determines the direction of the incision.
- The proximal part of the incision can be accurately determined using the palpation of the distal edge of the transverse carpal ligament.

STEP 2 EXPOSURE OF THE TRANSVERSE CARPAL LIGAMENT



- Once the subcutaneous tissues are incised, the palmar aponeurosis is exposed and incised in the direction of its fibers.
- The subfascial adipose tissue, containing nerve terminations, is lifted toward the ulnar side of the incision.
- The distal lip of the transverse carpal ligament is thus exposed.
- It is necessary to locate the eminence of the median nerve and make sure there is no unusual course of the thenar branch.
- The insertion of the Kemis[®] Knife is made easier thanks to an elevator or "Mayo" scissors that make it possible to detach the palmar aponeurosis superficially and release the synovium of the flexor tendons and median nerve under endoscopy control.

STEP 3 CUTTING THE TRANSVERSE CARPAL LIGAMENT



- The Kemis[®] Knife is placed on the distal lip of the ligament.
- Regular pressure is applied to the Kemis[®] Knife until the blade cuts the ligament.
- In the case of very thick and sclerotic ligaments, it may be necessary to start cutting with a surgical knife before using the Kemis[®] Knife.
- Before closing, make sure the release has been properly performed and reposition the subfascial adipose tissue.

STEP 4 CAUTIONS AND CLOSING



CAUTIONS

Carefully insert the Kemis[®] knife until touching the ligament.
Avoid to-and-fro movements.

CLOSING

• Close the incision with stitches, either dissolvable or not, depending on the surgeons' habits.

• Apply an adhesive dressing, encourage patient to move his/her fingers as soon as possible.

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REFERENCES



KEMIS®	
Ref	Description
ANC209	Knife for carpal tunnel surgery

