SINGLE PORTAL ENDOSCOPIC CARPAL TUNNEL RELEASE

Lifelong Learning
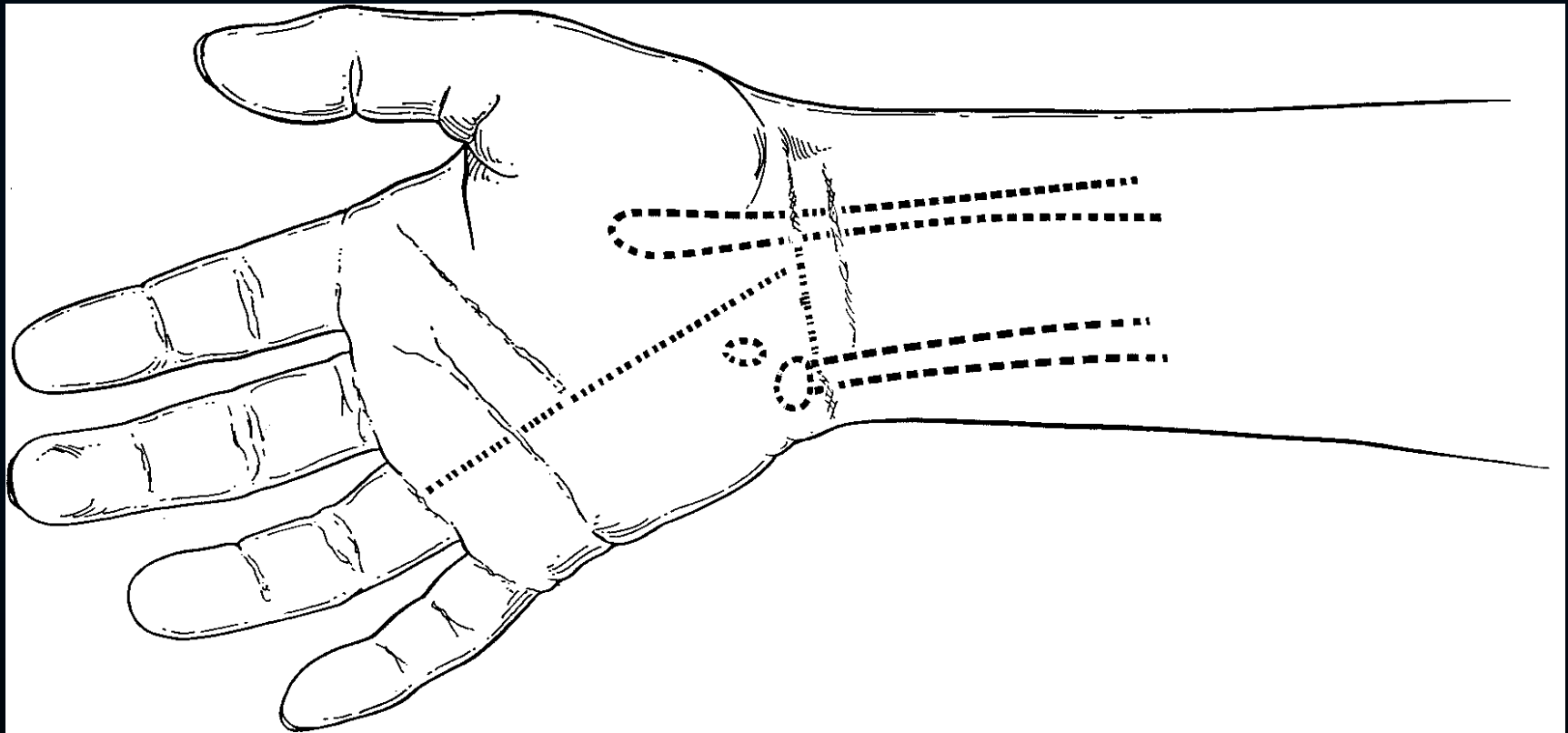
OrthoBioMed
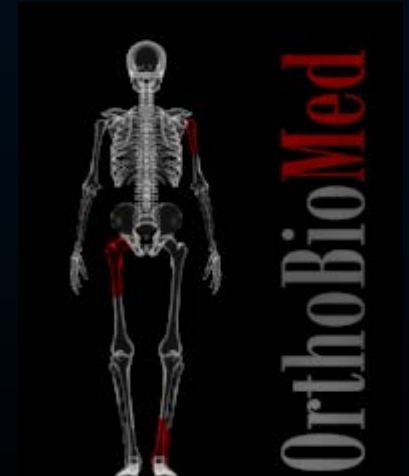
STEP 1:

Identify and mark:

Pisiform, Hook of hamate, FCR, FCU, Palmaris longus tendon.

Draw a line from the mid-point of the wrist flexion crease incision to the base of the first phalanx of the ring finger
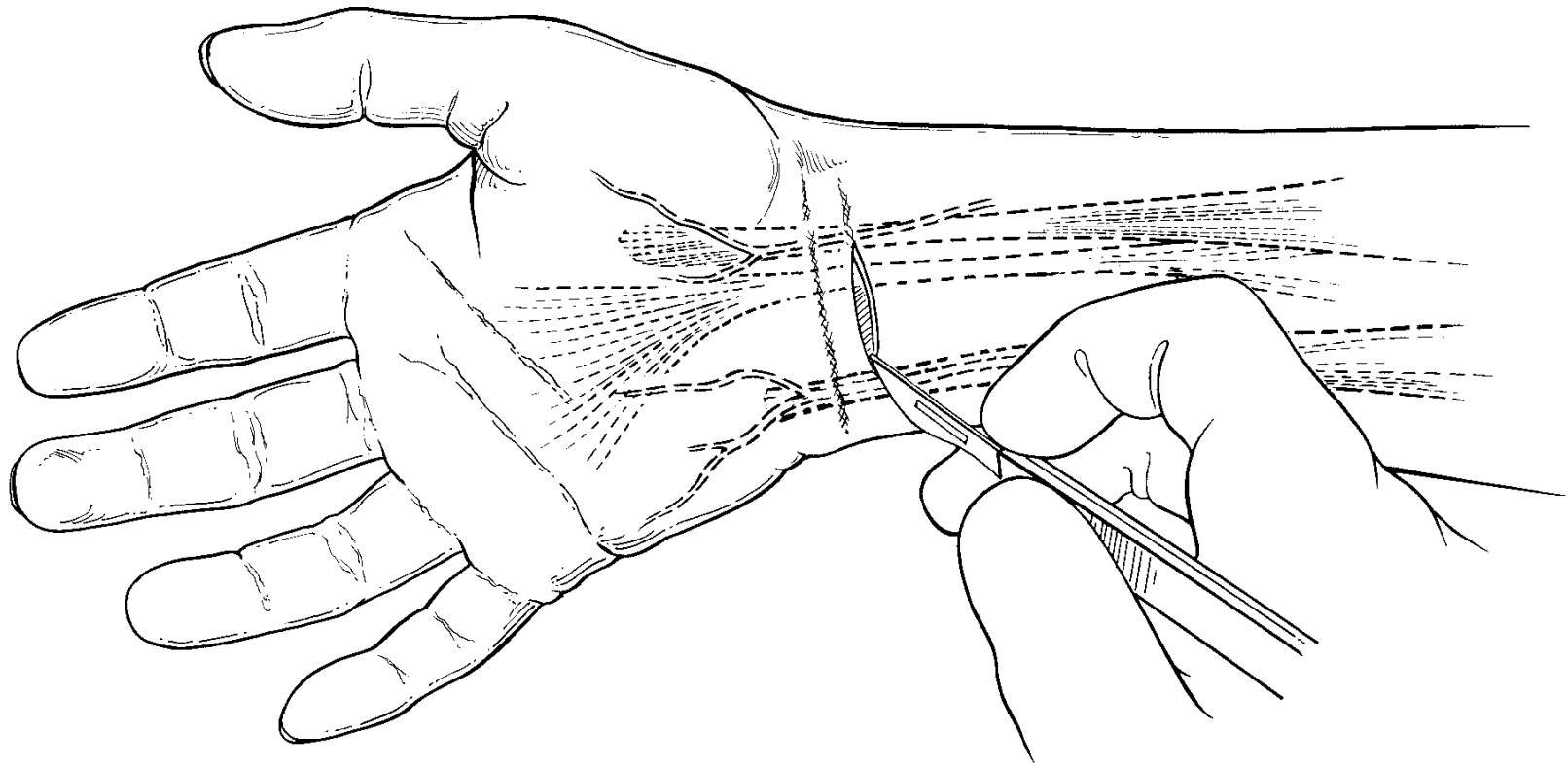
STEP 1:

STEP 2:

Make an incision through the skin in the distal wrist flexion crease between FCR and the FCU. The incision should not be so deep as to divide the palmar cutaneous branches of the median nerve. Keeping the incision wide (between FCR and FCU) during the learning phase will help in the next step.
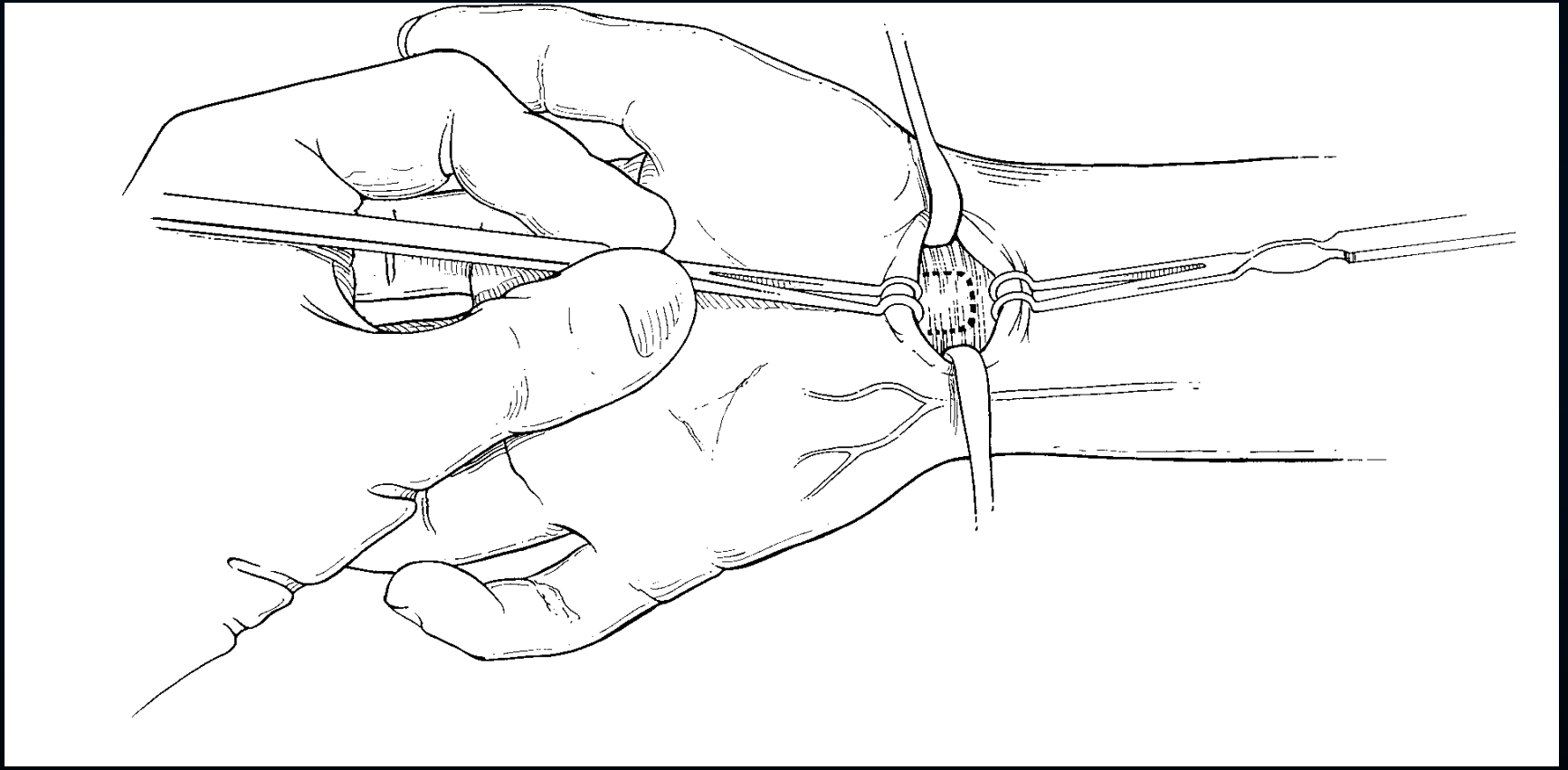
STEP 2:

STEP 3:

Identify the antebrachial fascia. With scalpel, make a distally-based U-shaped incision.

Identify the median nerve.

CAUTION: Excessive retraction over the ulnar neurovascular bundle may cause injury.

STEP 3:

STEP 4:

Identify the ulnar bursa (finger flexor synovium). Using spreading dissection, carefully separate the bursae from the forearm fascia. Continue the blunt dissection distally until the proximal edge of the TCL is identified.

STEP 5:

Using the synovium elevator and maintaining alignment with the inked line to the base of the ring finger, separate the bursae from the dorsal side of the TCL.

The tip of the synovium elevator and hamate finder should be able to tactilely identify the tranverse bundles of the TCL.

STEP 5:
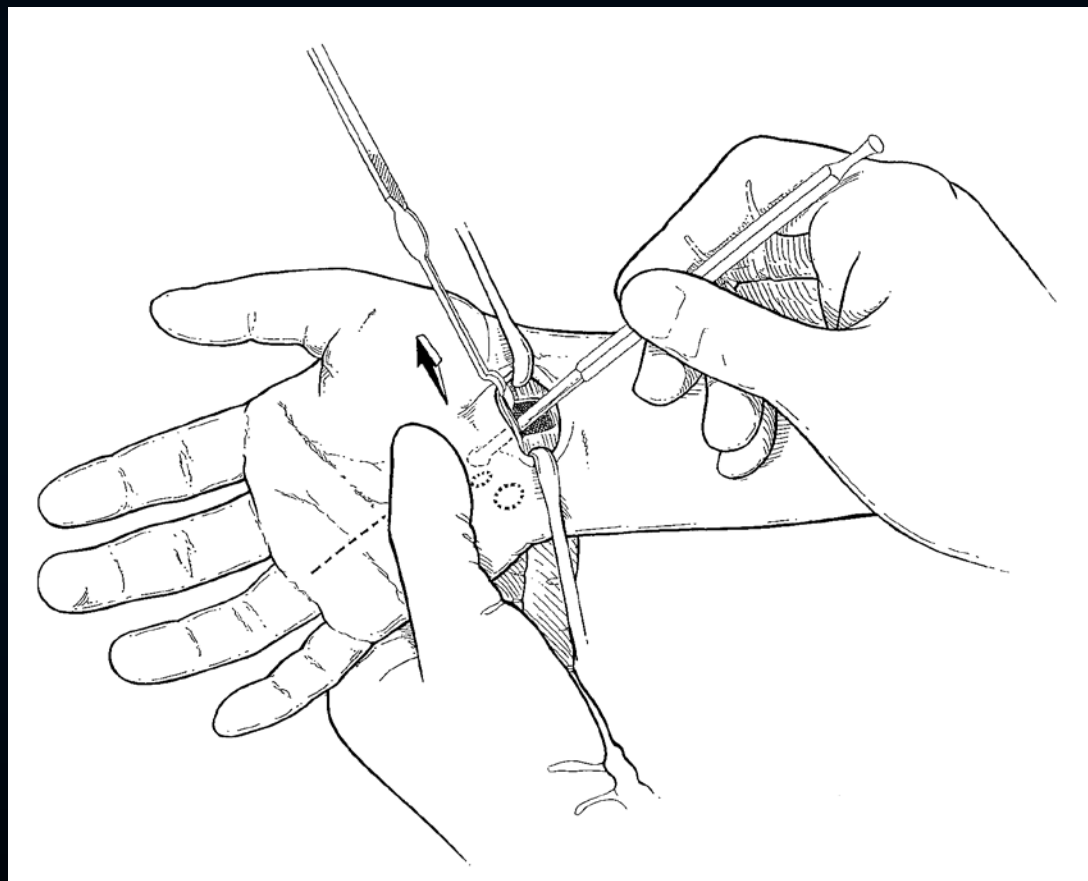
STEP 6:

While retracting the U-shaped flap in the forearm fascia in a vertical direction, insert the blade assembly in a 45 degree angle under the TCL with the wrist in neutral flexion.

Visualise the transverse bundles of collagen that make up the TCL.

STEP 7:

Pushing the flat surface of the case of the blade assembly flat against the dorsal surface of the TCL, use the blade assembly to clear/push unwanted tissue from the visual field.

STEP 7:

Visualize the yellow fat pad distally and the junction of the fat pad and TCL. While pressing the blade assembly in a palmar direction flat against the dorsal side of the TCL, elevate and engage the tissue with the blade at the junction of the TCL and the fat pad.
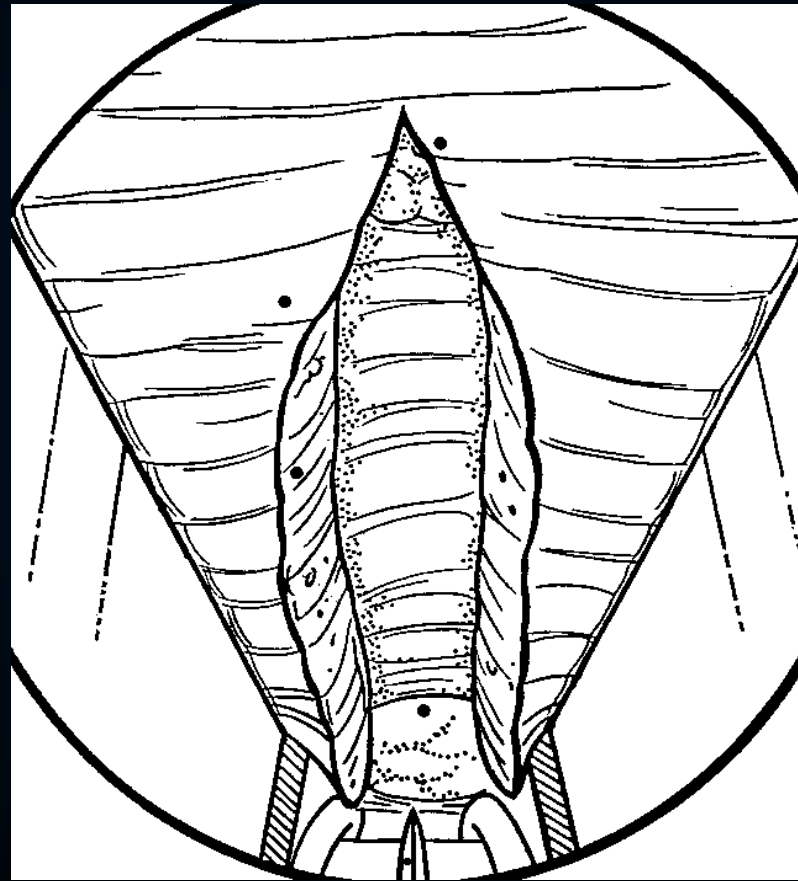
STEP 7:
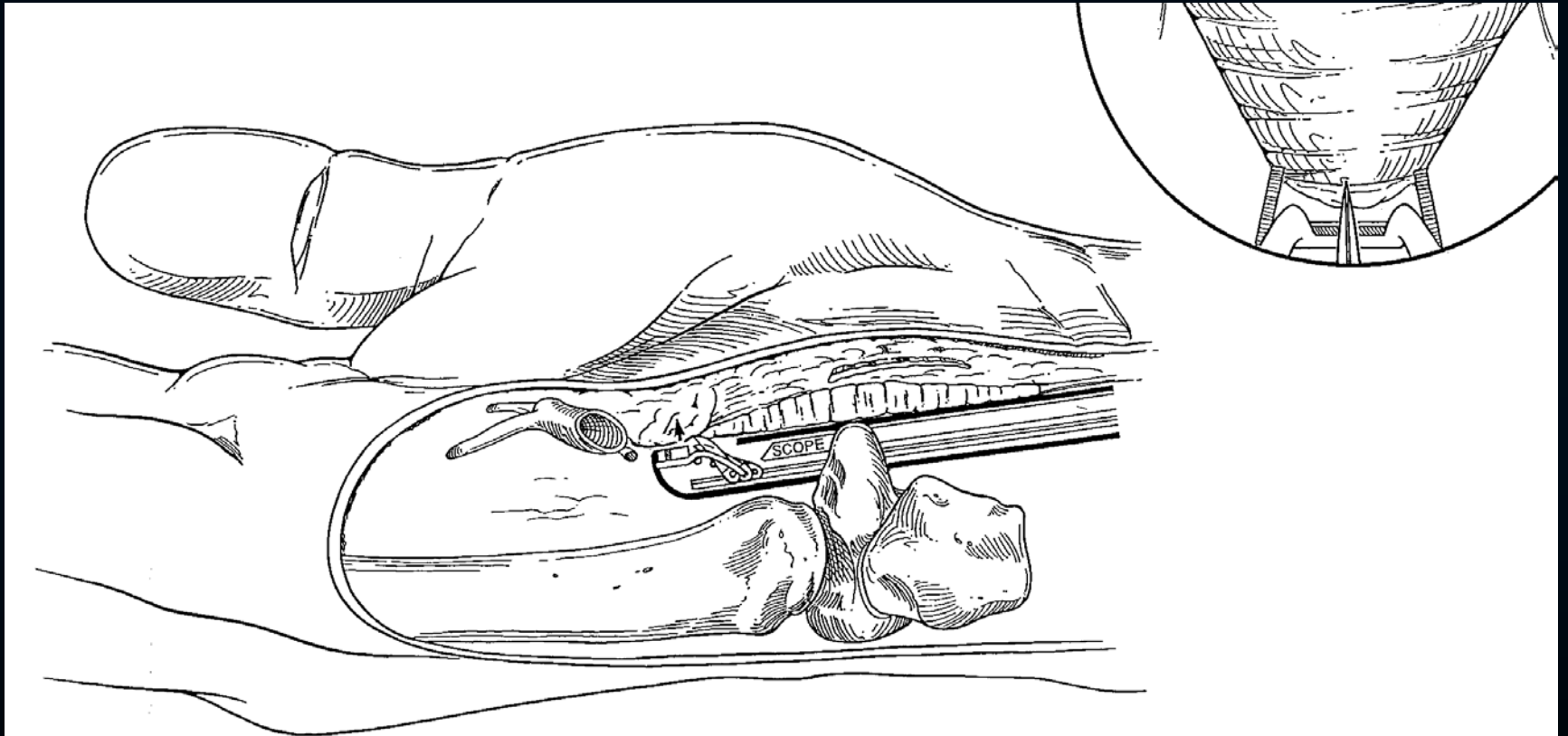
STEP 7:

Cut the distal one-third of the TCL. Inspec the cut to determine if it is complete.

Cut the remaining proximal two-thirds of the TCL.

A complete release is characterized by the cut edges spreading to the point where both edges of the cut TCL cannot be seen together on the monitor.

STEP 7:

STEP 8:

Using tenotomy scissors, release the forearm fascia 2-3 cm proximal to the wrist flexion crease incision.