

## 00349 Minimally Invasive Palmaris Longus Abductorplasty for Severe Carpal Tunnel Syndrome

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**Aims:** Camitz abductorplasty is the most commonly used tendon transfer in patients with severe carpal tunnel syndrome (CTS). This procedure requires a long incision in the palm to harvest a strip of palmar aponeurosis to lengthen the palmaris longus (PL) tendon, allowing it to reach the abductor pollicis brevis (APB) insertion. We describe a minimally invasive PL abductorplasty using a strip of free flexor carpi radialis (FCR) tendon graft to achieve the necessary length. This can be done together with carpal tunnel release in patients with severe carpal tunnel syndrome (CTS).

**Methodology:** Distal wrist skin crease incision is made, exposing the FCR and PL tendon. Free split FCR graft is harvested using a 32-gauge wire loop. Transected distal PL tendon is then weaved to the FCR tendon graft using PDS 4-0 suture. The FCR-PL graft is then delivered and secured to APB insertion site through a subcutaneous tunnel, with wrist in neutral and thumb in full palmar abduction. Patients were immobilised for 4 weeks.

**Result:** 3 patients in our series had a mean age of 68.7 years and presented with severe CTS with APB weakness for an average duration of 22 months. Mean follow-up duration was 4.2 years and the mean DASH score was 7.7. Patient A and B had good outcome with near normal grip strength compared to contralateral. Patient C had adduction contracture with weak grip.

**Conclusion:** Minimally invasive PL-FCR abductorplasty is a relatively simple technique involving minimal soft tissue dissection with fast recovery of function.