

Name

Sze-Ryn Chung

Email

szeryn@gmail.com

Title

Minimally Invasive Palmaris Longus Abductorplasty for Severe Carpal Tunnel Syndrome

Purpose

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 flexor carpi radialis (FCR) tendon graft to achieve the necessary length. This can be done together with endoscopic carpal tunnel release in patients with severe CTS.

Methods

Distal wrist skin crease incision is made to identify FCR tendon. Free split FCR graft is harvested with a 32-gauge wire loop. Transected distal PL tendon is then sutured to FCR graft with weaving technique. The FCR-PL graft is then brought distally at the APB insertion through a subcutaneous tunnel, and is then secured with nylon 4-0 suture. This was performed under tension with wrist in neutral and thumb in full palmar abduction.

Results

The 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. At final mean follow-up of 4.2 years, the mean DASH score was 7.73. Patient A and B had a near normal pinch strength compared to contralateral hands, but patient C had severe first metacarpal adduction contracture with weak grip.

Conclusion

In our experience, this operation achieves the same results as the Camitz transfer with less scarring and less risk of complications.