

## Tendoscopy: A Novel Way to Look at an Enigma; Indications, Technique and Results of Managing Tendon Pathologies in Foot and Ankle

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### Summary:

Endoscopic approaches to tendon pathologies have largely been an unexplored science and with this study we explain the indications for tendoscopy, describe its technique and present its results.

### Abstract:

**Background & Aim:** Lack of consensus remains regarding management of the myriad of etiologies that affect the tendons traversing the hindfoot. Commonly affected tendons include the peroneals, flexor hallucis longus (FHL), tibialis posterior and the Achilles tendons. Tendoscopy is a largely unexplored approach in treatment of these varied causes. There is not enough literature available on the utility of this novel technique. With this paper we aim to study the indications for tendoscopy, describe its technique and present its results.

**Methods:** Sixteen patients with failed conservative care for the above mentioned tendon related complaints were treated tendoscopically from June 2013 to December 2015. We detail the surgical steps to perform tendoscopy. Age, gender, timing of surgery, work & activity demands, preop & 6 months postop AOFAS hindfoot score were noted. At final followup patients were asked to rate their overall result as excellent, good, fair or poor & whether they were satisfied and would like to opt for this procedure again.

**Results:** Five patients had peroneal tendon pathologies (4 peroneus brevis splits, 1 low lying brevis muscle belly), six patients had FHL pathology (4 bony impingements, 1 loose body and 1 low muscle belly), two tibialis posterior tendon splits with tenosynovitis and 3 Achilles tendon pathologies (2 non insertional tendinosis and 1 insertional tendinosis with retrocalcaneal bursitis). Patient age ranged from 16 yrs to 54 yrs (mean: 28yrs), with 7 females & 9 males. 11 active high demand individuals (5 sportspersons, 3 competitive runners & 3 dancers) were part of this group and all of these could resume their high demand activity by 6 to 12 weeks. AOFAS hindfoot score improved from 58.6 +/-8.9 to 81.3 +/-7.1 ( $p>0.05$ ). All patients were satisfied with their surgical outcome with excellent rating in 9, good rating in 4 and 1 patient with subtalar arthrosis rating his experience as fair. 2 patients developed portal hypersensitivity, which improved with local management in 6 months.

**Conclusion:** Tendoscopy is a safe and effective technique to treat the various etiologies affecting the tendons traversing the hindfoot. Advantage being ability to examine longer length of tendon in a minimally invasive manner leading to low morbidity, early recovery to activities and additionally the ability to examine other structures in the hindfoot which may be pathologic.

**Key word:** Tendoscopy, Peroneal, FHL, Tibialis posterior, Achilles.