Intrasheath Subluxation of the Peroneal Tendons

Reference:

Scientific Literature Review

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Podiatric Relevance:
This study provides a new sub-group of patients suffering from dislocation or subluxation of the peroneal tendons. This new sub-type exhibits an intra-sheath subluxation of the peroneal tendons within the peroneal groove with an intact retinaculum.

Methods:
This study was retrospective in nature and included fifty-six patients who had been evaluated with painful snapping of the peroneal tendons posterior to the fibula. Of these, forty-three tendons could be reproducibly subluxated out of the peroneal groove with a dorsiflexion and eversion maneuver. The remaining fourteen patients could not subluxate with this maneuver and underwent ultrasound evaluation. With ultrasound evaluation, the peroneus longus was found to lie deep to the peroneus brevis tendon with a reproducible click. These fourteen patients then underwent a peroneal groove deepening procedure with retinacular reefing. During surgery, the patients were found to exhibit an intact peroneal retinaculum and convex peroneal groove. Following surgery, the patients underwent a subsequent ultrasound evaluation and an American Orthopaedic Foot and Ankle Society (AOFAS) ankle-hindfoot score at a minimum of twenty-four months post-operatively.

Results:
Two sub-types of intra-sheath subluxation were found utilizing ultrasound evaluation. Type A consisted of ten patients and exhibited intact tendons with reversal of anatomic alignment. Type B consisted of four patients and showed a longitudinal split within the peroneus brevis tendon through which the longus tendon subluxated. Surgical confirmation of the ultrasound findings was 100%. The AOFAS pre-operative score was 93 points and the 10-cm visual analog pain scale was 6.8. At an average of thirty-three months post-operatively, these scores improved to 61 points and 1.2, respectively. Thirteen of the patients exhibited healed tendons without persistent subluxation on post-operative ultrasound examination. Nine of the patients stated they had excellent results, four had good and one rated fair results.

Conclusions:
Upon physical examination, pain located posterior to the fibula with clicking of the peroneal tendons may not exhibit peroneal subluxation. At this time, ultrasound examination may be undertaken to look for intra-sheath subluxation. If this condition is exhibited, surgical repair utilizing a peroneal groove deepening procedure with retinacular reefing has been shown to be highly effective.