ISSN: 2634 - 680X

Journal of Clinical Case Studies Reviews & Reports

SCIENTIFIC Research and Community

Case Report

Open Access

Haglund's Syndrome: A Case Report

Benfaddoul O*, Hamdane J, Bellasri S, Slioui B, Roukhsi R, Hammoune N, Mouhsine A and Atmane E

Department of Radiology, Avicenne military hospital, Faculty of Medicine and Pharmacy, Cadi Ayyad University, Marrakech, Morocco

SUMMARY

Haglund's syndrome is a poorly understood mechanical condition resulting from a conflict between a prominent posterosuperior tuberosity of the calcaneus and the shoe responsible for inflammation of the retrocalcaneal bursa, supracalcaneal bursa, and Achilles' tendon. Clinical evaluation and lateral radiographs of the ankle are usually sufficient to establish the diagnosis. Haglund's disease is often treated conservatively, surgical excision of bony exostoses of the calcaneus is necessary only in resistant cases.

***Corresponding author**

Benfaddoul O, Department of Radiology, Avicenne military hospital, Faculty of Medicine and Pharmacy, Cadi Ayyad University, Marrakech, Morocco. Tel: +212 667248367; E-mail: benfaddoulwalid@gmail.com

Received: February 25, 2022; **Accepted:** March 07, 2022; **Published:** March 12, 2022

Introduction

Haglund's syndrome is a painful condition of the back of the heel caused by mechanically induced inflammation of the retrocalcaneal bursa, supracalcaneal bursa, and Achilles tendon, it is in fact a foot-shoe conflict related to a morphological anomaly of the posterior-superior tuberosity of the calcaneus, which is prominent (hugland's deformity [1].

The diagnosis is in most cases a source of confusion as the clinical picture may resemble other etiologies of hindfoot pain, hence the importance of associated radiological findings [2].

Case Report

We report the case of a 36-year-old male with a 6-month history of soreness and pain located in the Achilles area of the right foot, which increased with activity and shoe wear. On physical examination, there was a visible lump and tender swelling at the insertion of the Achilles tendon of the right heel with pain on palpation, ankle stability and foot joints were preserved, and the Thompson test was negative.

A lateral ankle radiograph showed small soft tissue swelling, ossifications in the thickened Achilles tendon suggesting tendinosis and a prominent posterosuperior osseous calcaneal tuberosity. Figure 1 and 2. a conservative treatment initially prescribed consisting of anti-inflammatory and analgesic agents but with no improvement and the prominent osseous calcaneal protuberance surgical excision was necessary.

Figure 1: Lateral radiograph of the right foot showing a prominent posterosuperior osseous calcaneal protuberance (white arrow), and ossification in the thickened Achilles tendon (red arrow).

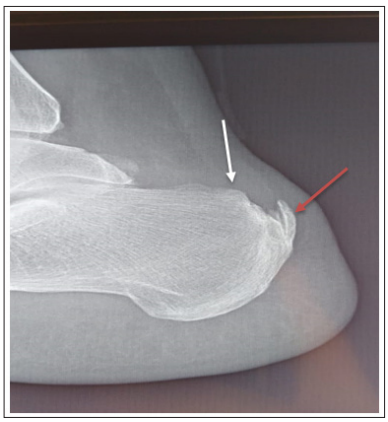

Figure 2: Lateral radiograph of the right foot showing a prominent posterosuperior osseous calcaneal protuberance (white arrow), and ossification in the thickened Achilles tendon (red arrow) (close up look).

Discussion

Posterior heel pain is a common condition and may result from numerous different causes. Originally, Haglund described pain in the hindfoot caused by a prominent posterosuperior wedge of the calcaneus in association with wearing a stiff back shoe; Its pathogenesis is currently not well understood; some hypotheses emphasize the continuous contraction of the sural triceps, which results in the Achilles tendon and the retrocalcaneal bursa being pinched against the posterior-superior calcaneal exostosis [3]. Others suggest that the process starts with an external compression of the heel, which exerts pressure on the retrocalcaneal bursa, which in turn puts pressure on the lateral part of the calcaneus, consequently, the calcaneal tuberosity increases in size in response to this persistent chronic irritation and the tuberosity in turn compresses the bursa and Achilles' tendon, causing a vicious cycle [4].

The clinical diagnosis is often confusing since the clinical findings may resemble other causes of hindfoot pain, such as isolated retrocalcaneal bursitis, calcaneal fracture, calcaneal periostitis, superficial calcaneal bursitis, Achilles' tendon insertion tendinitis, Achilles' para-tendinopathy and retrocalcaneal bursitis [5].

The diagnosis is suspected clinically based on a subjective complaint and a physical examination that finds pain on palpation of the calcaneal prominence, this swelling has a rounded form that extends to the calcaneal tendon and to the lateral and medial sides of the calcaneus which may sometimes be the place of an open, ulcerated, and infected skin irritation, it is confirmed radiographically using the measurement of the parallel pitch lines (PPL) in a lateral radiograph of the ankle; this procedure consists of drawing a line tangent to the inferior edge of the calcaneus, and another parallel to the first on the superior edge, at the height of the highest point of the posterior edge of the subtalar joint surface, if the calcaneal tuberosity exceeds this line, it is then considered to be a Haglund deformity, this prominent tuberosity is often underestimated due to the presence of fibrocartilage not visible on plain x-rays films. There are other methods that exist in the literature such as the Fowler-Philip angle: normally between 60° and 75° ; the Denis and Hubert Levernieux test; the "total angle" that must be less than 90° and Chauveaux and Liet angle [6,7].

In certain cases, the diagnosis can be supplemented by an ultrasound or magnetic resonance imaging; ultrasonography is not essential for the diagnosis of Haglund syndrome, it can demonstrate signs of irritation and soft tissue compression in the form of pre or retro-Achilles' bursitis, it also allows the study of Achilles tendon lesions ranging from a simple tendinopathy to rupture. MRI is more efficient than ultrasound and is used as a final option for a better analysis of the soft tissues [8,9].

Initial treatment consists of conservative measures including avoiding tight or high-heeled shoes, oral anti-inflammatory drugs, local corticosteroid injections and physiotherapy, If not effective, surgery is indicated by performing a retrocalcaneal bursectomy with osteotomy of the Haglund deformity [10].

Conclusion

Haglund's syndrome is one of many etiologies of pain in the hindfoot, it is a diagnosis that is suspected clinically and confirmed by radiological findings, imaging is essential in confirming the diagnosis, eliminating differential diagnoses and orienting the surgical management.

Disclosure of interest

The authors declare that they have n conflicts of interest concerning this article.

References

1. Kucuksen S, Karahan AY, Erol K (2012) Haglund syndrome with pump bump. Med Arch Sarajevo Bosnia Herzeg 66: 425-427.
2. Pavlov H, Heneghan MA, Hersh A, Goldman AB, Vigorita V (1982) The Haglund syndrome: initial and differential diagnosis. Radiology 144: 83-88.
3. van Dijk CN, van Sterkenburg MN, Wiegerinck JI, Karlsson J, Maffulli N (2011) Terminology for Achilles tendon related disorders. Knee Surg Sports Traumatol Arthrosc 19: 835-841.
4. Lee JC, Calder JDF, Healy JC (2008) Posterior Impingement Syndromes of the Ankle. Semin Musculoskelet Radiol 12: 154-169.
5. Alami RE, Kadiri M, Bardouni AE, Mahfoud M, Berrada MS (2020) Maladie de Haglund: à propos d´un cas avec revue de la littérature. PAMJ - Clin Med 4.
6. Sella EJ, Caminear DS, McLarney EA (1998) Haglund's syndrome. J Foot Ankle Surg 37: 110-114.
7. Jiménez Martín F, Alonso Valdazo MD, Díaz Peña G, Fernández Leroy J, Hernández Herrero D, et al. (2017) Haglund's Syndrome. Two Case Reports. Reumatol Clínica Engl Ed 13: 37-38.
8. Chauveaux D, Liet P, Le Huec J, Midy D (1991) A new radiologic measurement for the diagnosis of Haglund's deformity. Surg Radiol Anat 13: 39-44.
9. Delagoutte JP, Gervaise A (2010) Pathologie du tendon calcanéen. Appareil locomoteur. EMC (Elsevier Masson SAS), Paris 15-180-A-10
10. Ahn JH, Ahn C-Y, Byun C-H, Kim Y-C (2015) Operative Treatment of Haglund Syndrome With Central Achilles Tendon-Splitting Approach. J Foot Ankle Surg 54: 1053-1056.