

Haglund's Disease: The Interest of Surgical Treatment-A Case Report

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Abstract

Case Report

Haglund's disease is a mechanical cause of posterior heel pain leading to functional and sporting disability. It is due to a conflict between the achilles tendon and the postero-superior hypertrophied tuberosity of the calcaneus. Physical examination and Standard imaging and ultrasound are usually sufficient to establish the diagnosis. The treatment is primarily medical, surgery is indicated after failure of functional treatment and it consists of a resection of the posterior-superior bone prominence of the calcaneus with a good results.

Keywords: Haglund's, syndrome, calcaneus, surgical, achilles.

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INTRODUCTION

Haglund's disease or Haglund's syndrome, described by P. Haglund en 1927, is characterized by an hypertrophic development of the superior angle of the posterior tuberosity of the calcaneus leading to painful heel pain. It is manifested by the mechanical irritation of the pre-Achilles bursa and then the anterior deep portion of the achilles tendon fibers [1]. We report a case of a young patient who suffered a posterior heel pain related to Haglund's disease and the interest of the surgical treatment in the management of this pathology.

CASE REPORT

- Patient, 34 year old male, no significant pathological history including no notion of trauma to the foot concerned, admitted for pain of the posterior part of the right heel evolving for two

years aggravated there is 4 month with appearance of painful deformity of the heel hindering walking and wearing shoes.

- Physical examination, done bilaterally and comparatively, found the presence of a painful proeminence in the postero superior aspect of the calcaneus opposed to the insertion of the achilles tendon (figure 1), with a pain to the movements of plantar and dorsal flexion of the foot , a painful walk. The sign of Thomson is negative and painful, the curvature of the plantar arch is preserved.
- Lateral radiograph of the right foot (figure 2) showed a salient proeminence of the postero-superior angle of the calcaneus (with a Fowler angle and Philip greater than 70 ° and a Chauveaux and Liet angle greater than 10 °).



Fig 1 : Painfull proeminence of the postero superior aspect of calcaneous



Fig 2 : Lateral radiograph of the right foot showing an prominence of the postero superior angle of calcaneus (white arrow)

The patient was admitted to the operating room, under spinal anesthesia, by the para-achilles postero-medial approach of the right ankle, we went to the anterior face of achilles tendon and we have discovered bone prominence of the postero-superior angle of the calcaneum coming into conflict with the

achilles tendon and presence of pre-Achilles bursitis. The surgical treatment consisted of an osteotomy with resection of the bone prominence associated with a bursectomy (figure 3), followed by extensive washing and closure plan by plan.

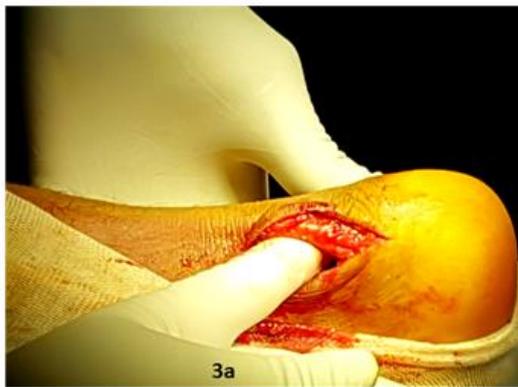


Fig 3a : postero medial approach of the ankle



Fig 3b: Resected bone prominence of the calcaneum

- We did a postoperative radiograph (figure 4) on which we noted a postero-superior angle of the calcaneus which is no longer salient after resection of the bone outgrowth.
- The ankle loading was authorized postoperatively immediately with active physical therapy to restore the ankle range, resume walking and stretch musculo-aponeurotic structures of the calf.
- At six months of follow-up, functional outcome was satisfactory we note a movable and painless ankle, a clean scar, a good tolerance to the shoes.



Fig 4 : Postoperative radiograph after resection of the bone outgrowth of the postero-superior angle of the calcaneum

DISCUSSION

- Haglund's disease is a mechanical cause of posterior heel pain leading to functional and sporting disability.
- It is due to a conflict between the achilles tendon and the postero-superior hypertrophied tuberosity of the calcaneus [2].
- Offending causes: [1]
 - Shoes with rigid buttress: create and maintain this pathology.
 - The hollow foot: throws back the posterior part of the calcaneus and increases the friction between the latter and the calcaneal tendon
 - Excessive verticalization of the calcaneus
 - Rheumatic causes (gout, ankylosing spondylitis ...)
- Physical examination is dominated by a painful swelling of the heel aggravated when walking and also at the boot and during the dorsal flexion of the foot [3].
- Standard imaging and ultrasound are usually sufficient to establish the diagnosis of Haglund's disease. MRI second to better analyze the condition of the calcaneal tendon.

The standard X-ray of the profile of the foot in charge makes it possible to evaluate the existence of the hollow foot and the state of the large tuberosity of the calcaneus which is normally rounded and smooth [4,5]. The deformation of this tuberosity can be appreciated by measuring the following angles:

- **Angle CL or angle of Chauveaux** which corresponds to the difference between the angle of verticalization of the calcaneus and its posterior angle. This angle is normally $<10^\circ$
- **Angle of Fowler and Phillip** normally between $60^\circ < N < 75^\circ$, measured between the tangent to the

inferior border of the calcaneus and the line joining the posterior contact point of the calcaneus and the apex of the large tuberosity.

- The treatment of Haglund's disease is primarily medical. Intra-tendinous infiltration of corticosteroids is to be avoided given the risk of rupture of the achilles tendon already in mechanical conflict. A physical treatment based on rehabilitation or orthotics has a great place in the care
- Surgical treatment is indicated after failure of functional treatment after at least six months [6]. It consists of a resection of the posterior-superior bone prominence of the calcaneus associated with debridement of inflammatory tissues, a bursectomy and sometimes a combing of the achilles tendon [7].
- Some complications have been described [8,9] but are rare including calcaneal weakness, hypertrophy and hyperesthesia of the scar ...

CONCLUSIONS

- Haglund's disease is one of the causes of posterior heel pain leading to functional and sporting disability. The diagnosis is based on the clinical examination and the prominence of the calcaneal large tuberosity on the standard X-ray of the foot profile under load. Ultrasound and MRI show the damage to the calcaneal tendon.
- The initial treatment is medical and physical. The surgical indication is only asked after failure of conservative treatment. Resection of the bone prominence of the calcaneal tuberosity remains the surgical treatment of choice.

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