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Case Report

Haglund's Disease: About a Case

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Abstract

Haglund's disease is a relatively undervalued condition. It is linked to a calcaneo-Achilles conflict. We report the case of a 38-year-old patient, revealed by a painful swelling of the right rear foot with an extremely embarrassing posterior talalgia, exaggerated when putting on shoes, attenuated by rest. The diagnosis was confirmed on standard radiography of the ankle under load and on ultrasound. The treatment, initially medical, ended in resection surgery of the postero-superior angle of the calcaneus. The evolution was favorable in our patient

Keywords: *Haglund's Disease; Radiography; Surgery*

Introduction

Described by the Swedish Patrick Haglund en 1928, Haglund disease designates the pains of the hindfoot of mechanical origin in connection with a conflict between the different elements of the retro calcaneal region [1]. It is in fact a foot-shoe conflict linked to a morphological anomaly of the postero-superior tuberosity of the calcaneus with retro-calcaneal and pre-Achilles inflammatory bursitis and Achilles tendinopathy. Disabling condition especially in athletes, it would be the prerogative of the female gender [2] and represents an unknown etiology of posterior talalgia [1]. Its clinical diagnosis is often a source of confusion since the clinical picture can mimic other causes of pain in the hindfoot [3]. We report the case of a patient, presenting through a literature review the radio-clinical characteristics and the therapeutic aspects of this pathology.

Patient and Observation

It was a 38-year-old patient, with no particular history, referred for exploration of a painful swelling of the right rear foot (Figure 1) with an extremely embarrassing posterior talalgia, exaggerated when putting on shoes, attenuated by rest. This pain was unresponsive to medical treatment and a standard profile ankle load of the ankle was requested. This examination showed a prominence of the posterior superior angle of the calcaneus (Figure 2). The angle of Fowler and Philip was equal to 80°. Ultrasound of the ankle revealed a pre-Achilles anechoic fluid effusion in connection with a pre-Achilles bursitis associated with a rupture of the anterior fibers of the Achilles tendon. The diagnosis of pre-Achilles distal tendinosis (Haglund's disease) was mentioned. There were no abnormalities of the other ankle ligaments. The failure of the medical treatment based on a peritendinous infiltration of corticoids led to the realization of a surgical treatment

having consisted of a resection of the postero-superior angle (Figure 3), associated with an excision of the calcaneal serous bursa. The evolution was favorable with a decline of 9 months.

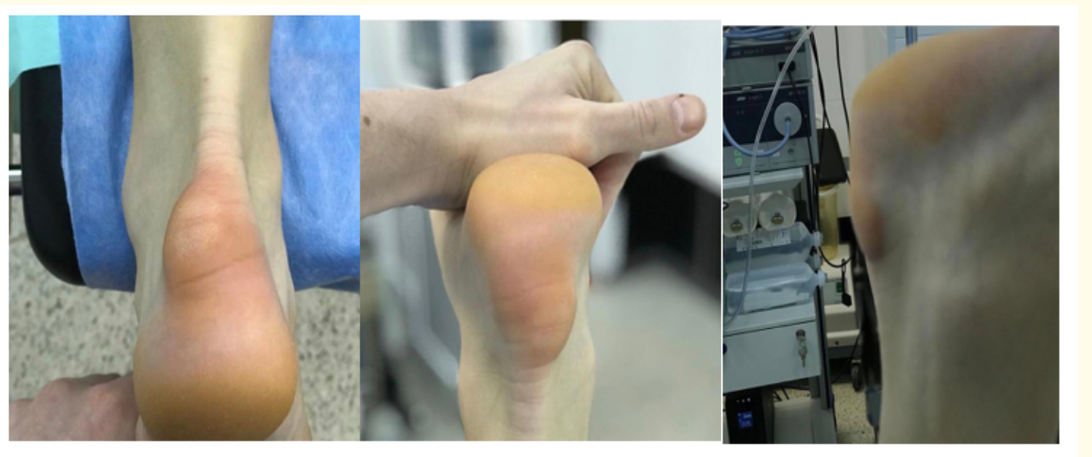

Figure 1: *Painful swelling of the hindfoot.*

Figure 2: *A standard profile radiography in charge of the ankle shows a prominence of the posterior superior angle of the calcaneus.*

Figure 3: *Postoperative radiography after resection of the postero-superior angle.*

Discussion

Talalgia is a common cause of discomfort. They can be due to mechanical or inflammatory enthesopathy, bursitis, nerve compression, bone or soft tissue damage, "but a mechanical etiology remains the most common [4]. Haugland's disease is linked to repetitive strain injuries in which the tendon is the seat by action conjugate of the buttress of the shoe and the posterosuperior angle of the calcaneus, acting on the tendon which is caught as "between the anvil and the hammer". It results in a swelling made of bone hypertrophy, inflammation of the serous bursae and skin modifications, and sometimes leads to a real impossibility of "putting on". Several etiopathogenic theories (dysplastic, rheumatic, traumatic and hollow foot) have been advanced [1,5]. From the pathophysiological point of view, Haglund syndrome is linked to morphological modifications of the retrocalcanean region, incriminating above all a conflict between the deep face of the Achilles tendon and the postero-superior tuberosity of the abnormally prominent and enlarged calcaneus. The clinical picture is dominated by a painful swelling of the heel, aggravated when walking and also when putting on shoes and during dorsal flexion, sometimes associated with the presence of inflammatory signs. The diagnosis is based on the subjective complaint and the examination finds pain on palpation of the calcaneal prominence [6]. Standard radiography and ultrasound are generally sufficient to make the diagnosis [1]. The standard profile radiography in charge of the ankle makes it possible to evaluate the hollow foot if it exists and confirms the prominence of the postero-superior angle of the calcaneus, often underestimated due to the presence of fibrocartilage not visible at the x-ray. Radiographic angular measurements make it possible to evaluate the verticalization of the calcaneus and/or the importance of the prominence (the angle of Fowler and Philip, the angle of Chauvaux and Liet) at the insertion of the Achilles tendon Ultrasound may show signs of irritation and compression of soft tissue such as pre or retro Achilles bursitis, with a thick wall and hyper-vascularized with color doppler. It also allows the study of the Achilles tendon going from a simple tendinopathy to rupture (cracking, intratendinous nodule and cystic degeneration and rupture) [1,6,7] and to make the therapeutic follow-up of Achilles tendon lesions. Bursitis can be varied in appearance: homogeneous or heterogeneous hypoechoic. MRI, which is not compulsory and performs better than ultrasound, is the last resort to better analyze the condition of the calcaneal tendon [1,6,7]. Before accepting the diagnosis of Haglund's disease, we must first eliminate other pathologies responsible for posterior ankle and heel pain. These are micro-traumatic or metabolic tendinopathies (hyperuricemia, dyslipidaemias), inflammatory tendinopathies (ankylosing spondylitis, rheumatoid arthritis), fatigue fracture of the calcaneus or isolated calcaneal bursitis [1,5,8]. The treatment of this condition first calls for medical-physical means. The medical treatment, often started first, is based on non-steroidal anti-inflammatory drugs and peri-tendon infiltrations of corticosteroids, preferably under ultrasound control. Local mesotherapy treatments can also be performed. Rehabilitation (physical treatment) is focused on transverse massage of the Achilles tendon and the use of ultrasound and cryotherapy [2].

Failure of medical treatment is common, even if it is maintained for several months. Surgical treatment is therefore indicated [6]. The latter removes the bone protrusion, a source of conflict [1]. Two techniques can be used [6]: resection of the postero-superior angle of the calcaneus or cuneiform calcaneal osteotomy with superior base (Zadek). To bone resection, it is necessary to know how to add, depending on the case, excision of the calcaneal bursa or that of degenerative tendon lesions on the anterior side of the tendon. Our patient had undergone a bone resection with excision of the serous bursa. Currently endoscopic calcaneoplasty is another therapeutic means [6]. The post-operative suites have no particular features, except that we must insist on the heel post-operative and especially on the elimination of any conflict with an aggressive buttress of a shoe.

Conclusion

Haglund's disease is an often overlooked cause of posterior talalgia. You have to think about it, look for it and make your diagnosis. Imaging based on standard radiography and Doppler echo, sometimes on MRI, confirms the calcaneus-Achilles conflict. Treatment, initially medical, may result in failure by endoscopic or even surgical management.

Consent

The patient has given their informed consent for the case to be published.

Competing Interests

The authors declare no competing interest.

Authors' Contributions

All authors have read and agreed to the final version of this manuscript and have equally contributed to its content and to the management of the manuscript.

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