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Case Study

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CASE REPORT: CHRONIC TENDINOPATHY ACHILLES TENDON SURGICAL COMBING TESTIMONY

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ABSTRACT

The Achilles tendon is the largest and strongest tendon in the human body, with a high capacity to withstand tensional forces. Achilles tendinopathy is a common condition, particularly in those who run. It is a chronic, activity-limiting syndrome, defined by the presence of pain and thickening in the Achilles tendon. We report the case of a patient who presents a corporal achilles tendinopathy, resistant to medical treatment for a duration of 06 months, the evolution being marked by the pain and the decrease of the tonicity of the tendon, which justified a surgical treatment by the technique of combing of the achilles tendon, the evolution in the course and medium term is marked by the absence of the pain and the resumption of a tonicity of the tendon at the end of the 3 rd post operative month.

KEYWORDS: CHRONIC TENDINOPATHY ACHILLES, COMBING, surgical treatment.

INTRODUCTION

Achilles tendinopathy or calcaneal tendinopathy represented by the association of pain, thickening or a nodule and a limitation of sports activities or daily life, is an increasingly frequent reason for sports medicine than for orthopaedic surgery. We distinguish corporal tendinopathies from entesopathies. The most commonly used treatment to date consists of excision of the pathological tissue and, for some, systematically combing the tendon in order to achieve overall thickening. This combing is based on techniques tested by veterinarians on racehorses.

We report a case operated and followed in our training having benefited from the combing technique.

CASE PRESENTATION

A 47-year-old young woman chronic smoker who presented with bilateral calcaneal tendinopathy of the achilles tendon, more marked on the right, evolving over a period of 2 years.

After a conservative treatment of physiotherapy by stretching the posterior chain, eccentric work of the achilles tendon associated with NSAIDs for a period of 06 months, the evolution is marked by the persistence of talalgia, hence the recourse to surgical treatment which consists in a combing of the achilles tendon.

Figure 1: medial para achilian approach.

Figure 2: Sign of tendinopathy of the achilles tendon.

Imaging of the 02 achilles tendons was performed using MRI, which showed: significant fissure tendinosis of the achilles tendon without rupture associated with a pre-tendon bursitis distally on the left and significant sign of tendinopathy of the achilles tendon on the right.

Surgical treatment

Figure 3: Thickened Achilles tendon

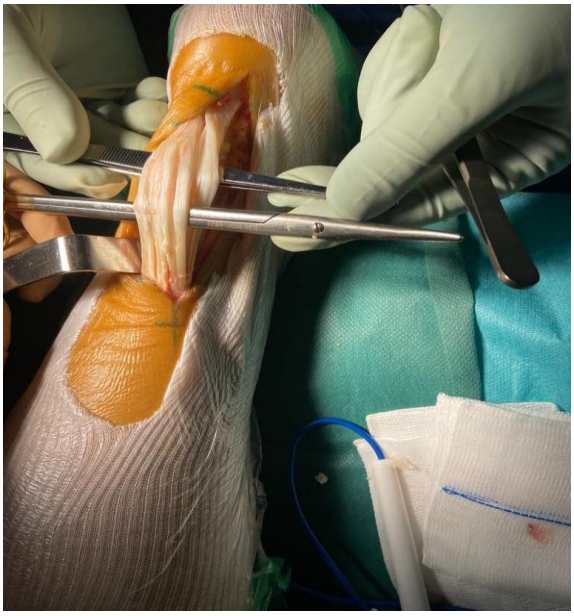

Figure4: combing of the tendon by obtaining six longitudinal strips

The surgical procedure consisted of excision of the pathological intra-tendinous non-vascularized tissues associated with combing of the tendon by obtaining six longitudinal strips.

In the immediate postoperative period, the ankle was immobilized with a walking boot, and functional rehabilitation of the ankle began on the 10th postoperative day.

Post-operative follow-up

At 03 weeks: the scar was clean without skin pain
Pain-free walking and plantar flexion with good muscle tone was obtained after 3 months of rehabilitation.

DISCUSSION

The painful phenomenon of CCHT (Chronic Corporal Tendinopathy) has long been misunderstood, which explains the diversity of surgical treatments.

Recent research[1,2] concludes that there is a correlation between certain paths of the small plantar and the occurrence of CCHT, and also finds a predisposition to CCHT in patients with a predominantly medial gastrocnemius compared to the lateral gastrocnemius.

It would seem that TCCC is the result of anatomical factors (presence, path, termination of the small plantar + strong medial gastrocnemius, retraction of the posterior muscle chain, hollow foot, etc.) and a favorable context (overactivity, change of activity, weight gain, change of footwear, lameness, etc.). This circumstance would lead to the creation of adhesion around the calcaneal tendon, the seat of nociceptive afferences.[3]

According to one of the few prospective studies dedicated to TCCC[4], 29% of these tendinopathies resist medical treatment. The surgical solution is then discussed.

Several surgical techniques have been described in the literature: combing, le « scraping » mini-open, small plantar tenolysis and endoscopic treatment.

The first series dates from 1966 with Genety and Pernine[5], with excision of the peritendon on the lateral, medial and dorsal surfaces, while respecting the ventral surface, which is the site of the tendon vascularization. Kvist[6] proposed to combine this procedure with combing of the tendon and resection of nodules and other pathological tissues. This procedure has been adopted by the majority of authors.

Maffuli and Testa[7] proposed a percutaneous technique through five small incisions which can be justified in pure tendinosis without nodular lesions.

This surgical technique can also be performed under endoscopy. Questel et al[8] report a series of eighteen cases of tendinopathy treated by endoscopy with a good result in all cases except for one athlete diagnosed as HLA B27 positive.

Combing increases the vascularization, the number of collagen fibers and the volume of the normal tendon; however, there are no experimental studies of combing on a pathological tendon.

A recent meta-analysis[9] of 62 studies (1964-2014) including any type of surgical treatment of 2923 TCCC at a mean follow-up of 40 months found 83.5% (36%-100%) of excellent and good results but with very disparate outcomes (36%-100%).

This variability in results is directly correlated with the type of lesions. The presence of intratendinous lesions (in addition to peritendinous lesions) is a risk factor for poor results.[4]

The endocsopic treatment was described for the 1st time in 1998 by Maquirriain.[10] Vega[11], 10 years later, codified the procedure perfectly.

CONCLUSION

We can affirm that surgical treatment of calcaneal tendinopathies by resection of the peritendon, excision of possible nodules and combing of the Achilles tendon can be proposed in case of failure of a well conducted medical treatment. The long-term results obtained (more than 5 years) confirm the interest of this surgery.

Although these techniques are now perfectly codified, they require prospective studies to confirm the expected good clinical results.

Conflict of interests
None.

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