

Achilles Injury Chronicles Plasty: A Modified Technique of Perez Teuffer Review

Jose G Martinez Estrada^{1*}

Head of Orthopaedics and traumatology hospital, 1^o October the ISSSTE Mexico DF, Mexico

***Corresponding Author:** Head of Orthopaedics and traumatology hospital, 1^o October the ISSSTE Mexico DF, Mexico.

Received: December 12, 2015; **Published:** May 19, 2016.

Summary

The purpose of the present work is to transmit the experience that one had with the technique used in chronic lesions of the Achilles tendon in the regional hospital 1^o October the ISSSTE. One carries out a prospective study with descriptive longitudinal pursuit of 30 patients with tendon Achilles rupture, with more than 10 days of evolution tried with a modified technique of Perez Teuffer carried out in the service of orthopedics and traumatology between March 1997 and March 2000. Carrying out a plastic conversion gives short lateral peroneus to stump tendon. The right hand side was the but affected in 70% the average age it was 31.1 years, I prevail the masculine sex with 90%. The time gives evolution went gives 10 days at 62, with a stocking he gives 26 days. We obtained excellent results in 90%. With 10% and gives good results a case that I present necrosis he gives skin and limitation for the mobility and two but with pain. No considered as bad results by not interfering with the final functional results.

Background in the year of 1575 Ambrose Pare became the first description about the rupture of Achilles tendon. Platt recommended free fascia lata [1] graft in 1931. In 1950 Lelièvre makes an aponeurotic flap of gastrocnemius that unfolds 180° and introduce the distal cavo between two tabs. Chigot in 1957 uses planting delgado [2]. In 1957 Bosworth takes a strip of fascia lata of the triceps and interlace at the distal end [3]. In 1959 Lindholm makes two flaps of fascia that suture at the distal end [4]. Benyi in 1961 [5] total skin graft is used. Lynn in 1966 used plant slim and a blade made it to include the broken ends [6,7], Abraham in 1975 makes a plasty flap v sliding to achieve approximation of the striped capes [7]. In 1974 Aurelio Perez t. used the tendon of the peroneus short side to transpose it to heel [8]. And another large number of techniques described for treating such injuries. The management of all these different and varied techniques in our daily practice have forced us to realize the advantages and disadvantages. Of all these, tipping us for using the us stand most appropriate and with fewer complications realize that some small modifications.

Keywords: Achilles Injury; ISSSTE; Traumatology; Achilles tendon; Perez teuffer

Introduction

Achilles tendon ruptures are most common in patients of middle age or athletes, the intrinsic weakness of the tendons secondary to micro repeated trauma and incomplete healing produced in areas of poor blood supply that predispose to rupture of the tendon [9]. The Achilles tendon is an area of relative hypovascularidad shown by angiographic studies Lagergren of between two and six cm above the insertion of the calcaneus [10]. The Achilles tendon ruptures occur in various forms:

1. Additional stretch of tendon already stretched to its maximum capacity.
2. Forced dorsiflexion of the ankle when it is relaxed and not prepared for it.
3. Direct trauma of the tendon when the latter is to stress or in some cases of immuno compromised patients, rheumatoid arthritis, lupus erythematosus and other systemic diseases.

Chronic Achilles tendon ruptures are debilitating injuries that in the past had been difficult to treat properly, especially because an inappropriate diagnosis in acute stage brings a long standing lesion as a result. For our criteria we apply technique in early after 10 days

of evolution lesions although other authors considered long-standing injury after 21 days. Whose management differs from that will take place in acute stage. In the literature have been described multiple procedures for the repair of the inveterate lesson of achilles tendon, in our study will analyze any modifications made to perez teuffer technique for chronic injuries of achilles tendon reconstruction.

Materials and Methods

Held a prospective follow up, longitudinal and descriptive study in patients at the hospital october 1st Isste presenting rupture of achilles tendon of more than 10 days of evolution, treated by the modified technique of perez teuffer applying the technique after 10 days because we consider that from this time the difficulty of facing a retracted muscle is greater even though other authors consider the long-standing after 21 days. This was done during the period of 1 march 1997 to march 2000. Inclusion criteria understood all patients admitted for the emergency service of both sexes, 15+ considered adults, with rupture of achilles tendon of more than 10 days of evolution with or without a history of another disease that conditioned the rupture.

Exclusion criteria: Only exclude patients under 20 years of age and with fewer days of evolution in terms of criteria of removal only remove the patients who dropped.

A total of 30.27 male, 3 female patients were included, the age ranged from 21 to 46 years an average of 31.1. The mechanism of injury was indirect direct trauma in 18 cases in 12, of which 22 making a sporting activity. Diagnosis was done to your income through the examination and clinical examination. Symptoms presenting is dolo, limitation for dorsiflexion, occasional edema.



Figure1: Approach Italics Postero Lateral.



Figure 2: Lateral Peroneal cut desincertado.

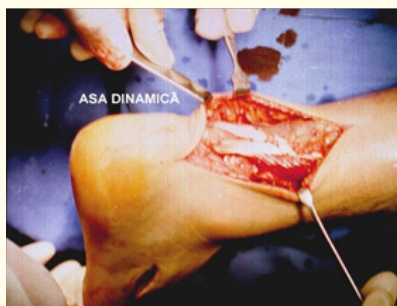


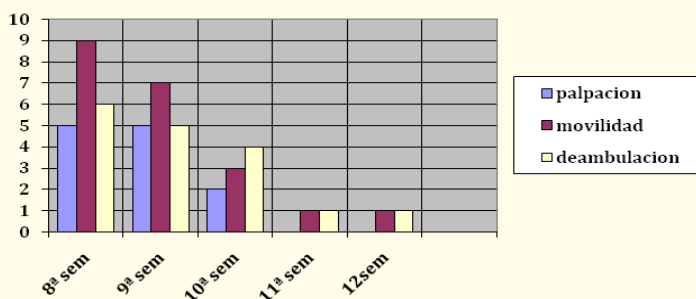
Figure 3: Dynamic Handle of Peroneal.

Decrease in force and binding operation Surgical technique. Low block in ventral decubitus with ischemia and regional. Modifications to the original technique begin in the approach, which is not back butitalics posterolaterals of smaller size 10 cm. approximately (Figure 1). Finding the rupture in all patients between two and 6 cm. Above the inclusion, and once dissected, the tendonis release dperoneal short side of your inclusion on the basis of 5th metacarpal (Figure 2). It is passed through the stump of achilles not in calcaneus as in the technique of perezteuffer, forming a handle dynamics uturing with itself (Figure 2), frees the sheath of the peroneal as close as possible to allow to pass from side to back and not be friction in your podor pain, isstitched by planes and placed plastergastropathyt high apparatus for two weeks and then boot short for four weeks more. Allowing support partial, and 6 weeks it with draws boot and starts Rehabilitation therapy.

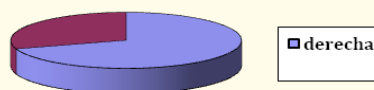
Results

All the patients operated with the modified technique of perezte. Review edis with a total of 30 patients of which 27 male (90%) and 3 (10%) women. The age ranged from 21 to 46 years of age with an average of 31.1 the time elapsed between the injury and its Treatment was from 10 days 62 days with an average of 26 days tip most affected was right with 21 cases (70%) and 9 cases of left side (30%) was conducted an evaluation in visual analog scale of pain/tenderness, mobility and walking, of the 8th 12 weeks with a scale of 0-10 pain.

Graph 1.27 patients presented excellent results wandering without pain 2 patients had regular results since they continued with minimal painful symptoms, at the level of the journey of the tendon peroneal short side by not release completely pod more proximal possible. A patient presented cutaneous necrosis is considered as good results in cerecovery painless mobility only takes longer to recover the skin.



Graph 1: Scale of Pain/Tenderness mobility and Ambulation.



Graph 2: Prevalence of Affect Extremity.

Discussion

There is no doubt that achilles tendon rupture is a condition that occurs frequently and is in office of emergency where you must make the diagnosis of acute injury since it is frequently confused with sprains or simple bruises, what conditions to be a long-standing injury and its management will not be in same in acute phase, nor their results by retraction and muscular atrophy which increases with the passage of time, although there are repostes well documented that functional in cases of long-standing injury outcomes is better comparably with the determined in acute period [14] there are large number of articles published in relation to chronic rupture of achilles tendon in order to rebuild the tendon and retrieve it more properly the same length these methods have reported very good results. In all of them using some reinforcement, as delgado plantar aponeurosis [6], fascia lata proximal portion of the achilles tendon lengthening of tendon, the same tendon [4] franking, synthetic fat and even material finger flexor longus, in 1974 aurelio pt presents his experience with a plasty in lauque transposes the fibulae short side to the calcaneus referring a plasty which works very well in athletes is reintegrated fully his activities without problem [8]. The technique we are presenting is a good treatment option, indicated on such problems and offers patients excellent results. I don't want to say that this technique is the best or the only is a management option, nor is it a comparative study with other techniques.

Complications

The Complications that we had, were two patients with pain at the level of the muscle belly of the tendon peroneal side cut by a likely insufficient release of the tendon sheath and a case with skin necrosis. Same that she is management with daily cures to healing recovering painless ambulation with complete arches of mobility, the challenge of the patients without problem.

Bibliography

1. Platt H. "Observations Some Tendon Ruptures". *British Medical Journal* 1.3666 (1931): 611.
2. Chigot., *et al.* "Treatment Des Ruptures Du Tendon d'Achille. Par Autoplastie Avec Le Plantar Grele". *Academie de Chirurgie, Seance du 18 fevrier* 198 (1957): 194.
3. Boswor., *et al.* "Repair of the Defects in the Tendon Achilles". *The Journal of Bone and Joint Surgery* 38A (1956): 111-114.
4. Lindholm A. "A New Method of Operation in Subcutaneous Rupture of the Achilles Tendon". *Acta chirurgica Scandinavica* 117 (1959): 261-270.
5. Benyi P., *et al.* "T.A. Repair if Inveterate Rupture of Achilles Tendon by Means of Freely Transplanted Whole. Thickerness Skin Graft". *Acta Chirurgica Academia Scientiarum Hungaricae* 2 (1961): 83-97.
6. Lynn. "TA Repair of the Torn Achilles Tendon, Using the Plantar is Tendon as a Reinforcing Membrane". *The Journal of Bone and Joint Surgery* 48.2 (1966): 268-272.

7. Abraham E., *et al.* "Neglected Rupture of the Achilles Tendon Treat by V-Y Tendinous Flap". *The Journal of Bone and Joint Surgery* 57 (1975): 253-255.
8. Aurelio PT. "Traumatic Rupture of the Achilles Tendon". *Orthopedic Clinics of North America* 5.1 (1974): 89-93.
9. Cohoon W. "Campbell Cirugia Ortopedica". *Interamericana* 2 (1967): 1548-1552.
10. Lagergren C and Lindholm A. "Vascular Distribution in the Achilles Tendon: An Angiographic and Micro Angiographic Study". *Acta chirurgica Scandinavica* 116.5-6 (1959): 491-495.
11. Distefano VJ. "Achilles Tendon Rupture Pathogenesis, Diagnosis and Treatment by Modified Pullout View Suture". *Journal of Trauma* 12.8 (1972): 671-677.
12. Barred T. "Achilles Tendon rupture: An Etiology and Pathogenesis of Subcutaneous Rupture Assessed on the Basic of the Literature and Rupture Experiments on Rats". *Acta Orthopaedica Scandinavica* 152 (1973): 1.
13. Bouillit., *et al.* "Rupture Du Tendon D´Achilles Suture Par Un Lacet De Peau Orthopedic Surgery and Traumatology". *Excerpta Medica* 44 (1973): 849.
14. Boyden EM., *et al.* "Late Versus Early Repair of Achilles Tendon Rupture: Clinical and Biomechanical Evaluation". *Clinical Orthopaedics* 317 (1995): 150-158.

Volume 3 Issue 3 May 2016

© All rights reserved by Jose G Martinez Estrada.