



Cost Effective Minimally Invasive Percutaneous Achilles Tendon Repair- A Case Report

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Received: 27 June 2023

Published: 10 July 2023

Introduction

Acute rupture of Achilles tendon warrant a surgical repair. Percutaneous repair is known to minimize complication of wound infection and tendon adhesion.

Materials and Method

41 years old gentleman alleged sport injury whereby his left ankle in hyper-dorsiflexion with a “pop” sound. Post trauma he complaint of pain over left heel and difficulty walking. On examination of left foot noted increase resting ankle dorsiflexion and there was palpable gapping over Achilles tendon and Thompson test was positive. Plain left ankle x-ray noted obliteration of pre- Achilles fat pad.

Under spinal anesthesia, in prone position, two 1cm incisions were made over medial and lateral aspect of distal stump of ruptured Achilles tendon. A 10 holes 1/3rd tubular plate was inserted through each wound. Transtendinous Ethibond 5/0 sutures was passed through proximal stump of Achilles tendon by using 14G branula which passed through both 1/3rd tubular plate holes. Both plates were then pulled-out simultaneously to bring the sutures end out through the wounds. Using the similar technique, sutures were placed at distal stump of the Achilles tendon Stumps were opposed and tied with foot in fully plantar flexion. Intra-operatively Thompson test was favorable.

Result

Post operatively, patient was put on above knee full cast for 2 weeks with ankle in dorsi-flexion then was changed to air-cast and sent for physiotherapy. Upon assessment during follow up, range of motion of left ankle was full and the wound well healed however there was numbness over sural nerve distribution.



Discussion

The commonly used technique of minimal invasive Achilles tendon repair is by using a special designed jig known as percutaneous Achilles tendon repair system (PARS). However it is costly. This modified technique of repair might save the cost but producing the similar outcome. Although percutaneous Achilles tendon repair offer good result with less complication of wound infection and tendon adhesion but there is small increase risk of iatrogenic sural nerve injury.

Conclusion

The modified technique of percutaneous Achilles tendon repair is comparable to PARS and can be used to repair acute rupture of Achilles tendon, however, the careful must be taken and risk of sural nerve injury must be explained to the patient.

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