Reviewer's report

Title: Achilles tendon rupture following surgical management for tendinopathy: a case report.

Version: 2 Date: 23 October 2006

Reviewer: Guy Trudel

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General
This case presentation compares 2 percutaneous surgical techniques for Achilles tendinopathy. One is tenotomies and excision for tendinosis and the second end-to-end repair after complete rupture. One failed post-op after 2 weeks of cast and "routine" rehab and the second succeeded after an unknown period of casting and an unknown rehab protocol.

Evaluation:
Strengths
- Original, maybe first such case reported.
Weaknesses
- Documentation rather superficial of the key elements of the case.
- Was the rupture caused by the initial disease? the surgery? the exercise?
- The case ends up not resolving the key issue, not answering any question; as per the concluding sentences of the paper.
- As per BMC MSK guidelines, a well described case describing an important adverse reaction to treatment should be based on as many as possible of the following:
  1. time relation between intervention and reaction
  2. dose response relation
  3. withdrawal of treatment and re-challenge
  4. supportive evidence from previous reports
  5. biological rationale

Only item 1 and possibly part of item 5 are touched on by this case report.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Specific comments
Introduction
- First sentence is not precise and in fact incorrect. This definition corresponds to Achilles tendinosis. Tendinopathy being a more generic term encompassing all diseases of the Achilles tendon which includes A tendinosis but also A tendonitis, A tear, A rupture , etc…

- "Conservative methods include avoidance of aetiological factors and eccentric loading exercises [4]." This sentence is confusing, should exercises be included or avoided?

Case Presentation
The authors must define the "routine rehab", which seems key to the complication and the discussion of this case of rupture, as indicated in the abstract.
Lines 5-6 Since there were 2 tendons operated, there was more than one nodule and one area excised. How many? How large?
The description of the histology is a duplication of the Legend to Figure 2.

Discussion
Line 11 What do the authors mean by:" Eventually, the fibrous repair matures into scar tissue." Does scar tissue represent the final stage of repair? What about the development of a network of tenocytes and their even distribution onto the ECM of the AT?
The authors discuss a concentric contraction rupture but state that the rupture happened “whilst standing on his toes”. If the rupture happened after he had reached the toe-stand position, this would be an isometric contraction rupture, and if it happened while the patient was actually lowering himself from a toe-rise
position, this was an eccentric contraction rupture. How did the authors differentiate between the three?
Was there a difference in extent of disease and/or surgical intervention between the 2 sides that would explain the rupture on one side?

References
Appropriate

Figures
Fig 1 of the post-op scars after repair of the ruptured tendon adds nothing to the case.
Fig 2 must be better defined:
States the level of the specimen, state the plane of cutting.
Identify the key structures with arrows.
A staining with hematoxylin would convey the point about cellularity better.
Indicate magnification.
Provide imaging of the tendinosis (US or MRI)

What next?: Reject because too small an advance to publish

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests:
'I declare that I have no competing interests'