

Dear Prof. Lian-Sheng Ma,

we received your positive evaluation of our manuscript entitled “Traumatic peroneal split lesion with retinaculum avulsion: multimodality imaging for a early diagnosis and follow-up after surgical reconstruction in athlete” and we gratefully thank you for the opportunity of a revision. We accepted all tracked changes on the copy-edited manuscript and we revised the manuscript according to the comments provided by the reviewers.

Reviewer #1

R1.1 It would better to include more peer work on the development of fluorescent/luminescent platforms in the introduction part. For example, a) Chem. Sci., 2018, 9, 1119; b) Sens. Actuator B-Chem., 2017, 243, 971; c) Anal. Chem., 2017, 89, 11679; d) Chem. Sci., 2017, 8, 4756; e) J. Am. Chem. Soc., 2018, 140, 1686; f) J. Am. Chem. Soc., 2018, 10.1021/jacs.7b12817.

We cannot find any possible connection between peroneal lesions and fluorescent/luminescent platforms; this looks like a copy-paste issue.

R1.2 Among all the described anatomic variants that predispose to PB disease, how is the probability for each case? Is this related to the age or gender of patients?

Peroneal instability predisposing conditions could be found in around 1/5 of population with the most common conditions represented by a flat or convex retro-malleolar groove that could be found in 15-20% of population with no age or gender prevalence. Probability rates for all conditions were added to the manuscript.

R1.3 For the diagnosis of PB disease, please also briefly introduce the common misdiagnose case for reference.

The most common misdiagnose for peroneal lesion is represented by chronic ankle instability (CAI), which occurs in 40% of patient following an acute ligament sprain. This point was clarified in the text.

R1.4 Regarding the therapeutic method described in this manuscript, it would be more convincing if the authors could possibly make a comparison between the method applied in this manuscript and other commonly used ones.

Acute repair of the peroneal tendon and retinaculum is indicated for active athletes who desire quick return of sport activity. Non-operative treatment is suggested for acute injuries in nonathletes with pain relief, activity modification, cast immobilization, and protected weight bearing for 6 weeks after the injury. Surgical procedures for chronic cases fall into 5 categories: anatomical reattachment of the retinaculum, bone block procedures, tissue transfer procedures, rerouting procedures, and groove- deepening procedures. This point was discussed in discussion section and also pertinent literature was cited.

R1.5 How much time would it be necessary for patient recovery in underdiagnosed case of PB split lesion? What's the difference for patient activity performance in this case?

After surgery, a plaster cast is used for 2-6 weeks; after 6-8 weeks, the rehabilitation training can be initiated. After approximately 12 weeks, the patient can resume the agonistic activity. Although a minor performance reduction after surgery is reported in around 15% of patients, the patient of this case report referred no symptoms during sport activity, with a pre-injury level of performance. These points were included in the manuscript.

R2.1 more detailed follow-up data - did the patient return to his previous activities? / were any outcome scores used?

Information regarding patient follow-up were included in the manuscript (see #R1.5). Unfortunately no activity outcome score was used to assess level of performance. However, the patient subjectively reported optimal performance during the sport events with no pain (VAS 0) or instability feeling during sport activity.

R2.2 A description of the 'trans-osseous wiring' technique for the SPR repair would be useful - what equipment was used.

Interrupted sutures are passed through the fibula and SPR and then tied over the SPR in a horizontal fashion to reattach it back to the fibula. The lowest 2 or 3 sutures are passed transosseously through the posterior lateral aspect of the fibula and then through the posterior portion of the retinaculum to wrap the retinaculum over the peroneal tendons and minimize any chance for recurrent peroneal subluxation. A 0.054 K-wire was used for the repair holes through which No. 1.0 Vicryl suture can be passed.

R2.3 The post-op rehab protocol should be in the results section, not in the discussion section.

The manuscript was modified accordingly

R2.4 I think 'agonist' is meant to be 'concentric'.

The manuscript was modified accordingly

R2.5 Please review and revise the language quality of the paper.

A detailed language revision was performed throughout all manuscript.

We are now submitting:

1. one "changes-tracked" copy of the manuscript;
2. one clean copy of the manuscript;
3. answers to reviewers' comments contained in the present letter.

We hope that the manuscript can be now accepted for publication in World Journal of Radiology.

Sincerely,

Davide Orlandi, MD PhD