

## Review Form 1.6

Journal Name:	<a href="#">Journal of Advances in Medicine and Medical Research</a>
Manuscript Number:	Ms_JAMMR_77032
Title of the Manuscript:	Evaluation of rehabilitation of surgically repaired flexor hand tendons and ultrasonographic follow up of their healing
Type of the Article	Original Research Article

### **General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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**PART 1: Review Comments**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<b>Compulsory</b> REVISION comments	<p>Well written paper focusing on the importance of proper rehabilitation protocol, for surgically treated flexor tendon injuries. It combines the clinical evaluation with US evaluation. US are used both as treatment method and as evaluation method. There are some important issues that require proper answer.</p> <p>The most important issue for flexor tendon injuries is the level of laceration, according to the zones defined in the hand. It is completely different result for lesions affecting tendon injuries in the zone 2, compared with those in zone 4 or 5. Mainly lesions affecting the tendon chiasm have poor results. THE LEVEL OF LACERATION is not mentioned at all. IT is surprising the percentage of injuries of the little finger. The authors cannot conclude generalized conclusions for tendon lesions when little finger is the predominance one. Little finger has the LESS participation in grip and results for gripping are not valuated when affecting mainly the little finger.</p> <p><b>In introduction</b> the first 2 paragraphs are general comments on hand but not appropriate for their paper that focuses on rehabilitation and use of US. A PARAGRAPH for the importance of evaluation with US and some papers on US, are important to introduce to patients and methods.</p> <p><b>Patients methods</b></p> <p>The level of injury is important to be reported. They mention the exclusion of nerve injuries but vessel injuries are not mentioned. They are COMMON with the tendon lacerations and affect the final result. They have excluded thumb lesions. Is there any particular reason for this?</p> <p>Immobilization of PIP in neutral is NOT the ideal position, (20d flexion is appropriate). The authors must comment on it.</p> <p>Regarding treatment they must report on the use of passive or controlled active or passive movements. They comment in the discussion but is not reported in the methods</p> <p>On grip strength they must report the difference between the dominant and non dominant hand. Laceration of tendon in non dominant hand is DIFFERENT in results in grip, compared with lesions of the dominant hand. As I mentioned, for lacerations of the little finger, gripping tests are not as valid as for index or middle finger.</p> <p>Regarding US definitions the author must explain the meaning of defect size. In the presence of initial defect (inadequate suturing?) it is not reasonable to perform even passive movements. Usually in the initial examination with US there is NO obvious defect. This is different from the healing process that they describe.</p> <p>The same question applies for vascularity. They report on vascularity of the tendon itself or the paratenon vascularity? Doppler refers to continuity of vessels around the tendon! This is confusing and it must be clarified.</p> <p><b>RESULTS</b></p> <p>These questions will help the readers to understand the meaning of significant decrease in defect after the 8<sup>th</sup> and 12 weeks, that is the COMMON pattern of tendon healing. In case that ONLY PASSIVE MOTION WAS USED, the pattern of decrease of defect will be expected in a different time table?</p> <p>The same applies for the proper evaluation of the term vascularity. An appropriate picture of Doppler, explaining the type of vessels that are recorded, will be helpful. Then we can understand the decrease in vascularity after the 8 the week.</p> <p><b>DISCUSSION</b></p> <p>The part on VAS is well presented.</p> <p>TAM is correlated with the lever of injury. There are NO REPORTS in the paper for the possible loss of continuity, in case of weak type to surgical treatment. In that case there will be loss of TAM. It must be explained appropriately.</p> <p>I have already mentioned on the accuracy of using Jamar dynamometer for the little finger. It is not valid.</p>	

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	The part on the assessment of the defect size requires more explanation and comparison with other similar US results from the literature. The authors are using appropriately the inflammation stages as an explanation for their findings in all US measurements. Literature They have new reports, it is well documented. Tables and the figure of US are helpful. US figure with Doppler can be also helpful	
<b>Minor</b> REVISION comments		
<b>Optional/General</b> comments		

**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

Name:	<b>Nikolaos Laliotis</b>
Department, University & Country	<b>Greece</b>