

**ESPS Peer-review Report**
**Name of Journal:** World Journal of Rheumatology

**ESPS Manuscript NO:** 10665

**Title:** Quantifying Synovial Inflammation: Emerging Imaging Techniques

**Reviewer code:** 00503345

**Science editor:** Fang-Fang Ji

**Date sent for review:** 2014-04-12 20:24

**Date reviewed:** 2014-06-28 02:53

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input checked="" type="checkbox"/> Grade A (Excellent)	<input type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input checked="" type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input checked="" type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C (Good)	<input type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)		<input type="checkbox"/> No records	<input type="checkbox"/> Major revision

**COMMENTS TO AUTHORS**

In this paper the authors discuss the advantages and the disadvantages of established and emerging imaging techniques that are used or may have potential to quantify synovial inflammation as well as bone erosion and cartilage changes that occur in various forms of arthritides. The message is clear. I consider that the paper needs a few clarifications and minor editing. Page 6, paragraph title: Please define "Ultrasonography" as US and use the abbreviation US instead of ultrasonograph (lines 1, 4, 10 of page 6 and line 8 of page 7). Page 6: "Synovitis at the knee in RA patients was first evaluated using GSUS at 5.0 MHz in a study evaluating Yttrium-90 synovectomy (17)." This sentence should be moved from its current location to the end of the first paragraph. Page 6: The power Doppler ultrasound is introduced in the first paragraph but the advantages of this technique are explained in the second paragraph. Substantial reorganization of this section is required. Page 7, line 11: It would be better to state, ... confirm that changes in power Doppler signals correlate quite well..." Page 7: "It is sensitive to intravenously administered contrast agents which can be used to augment very slow rates of flow". The end of the sentence is not clear. Page 9: Three of these developed joint involvement outside the PET field of view used in the study. What do the authors meant by joint involvement? It is arthritis in joints? Page 10, line 3: Anti-tumour necrosis factor could be deleted from the sentence. The abbreviation anti-TNF therapy is currently used in the field. Page 12, line 1 and page 14, line 6: parameters Page 12, line 13: This study provided proved that...

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**Date sent for review:** 2014-04-12 20:24

**Date reviewed:** 2014-06-30 17:08

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input checked="" type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
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<input checked="" type="checkbox"/> Grade D (Fair)		BPG Search:	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

**COMMENTS TO AUTHORS**

In assessing synovial inflammation, plain radiography and CT scan have no place as they detect only bony changes. The authors need to outline advantages and disadvantages for each imaging modality. For instance, for the ultrasound they do not mention examiner's experience, for the PET-CT the authors do not mention the cost. Minor points: Page 4, line 13: remove:proteoglycans, MMP blockers, CD22 Page 4, line 16: delete: the primary cause

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<input type="checkbox"/> Grade E (Poor)		<input type="checkbox"/> No records	<input type="checkbox"/> Major revision

major

- Ref 12 is written in French on "Transrectal ultrasonography of the prostate" Chapelon JY, Fourcade C, Cathignol D, Devonec M, Dubernard JM, Sarkissian J, Kamel G.. La Nouvelle Presse Medicale [1981, 10(42):3491-3492]. This reference was quoted in page 6 as "B-mode grey-scale US (GSUS) allows synovial thickening to be detected in regions of synovium and tenosynovium". Please clarify.

- should include table/s that will compare the advantage or disadvantage among different imaging techniques, it will help the reader to easily understand author's preposition.

- Page 14, discussion was made with reference 61. But I could not find figure 1 in reference 61. Where does figure 1 come from? State permission on reproduction of published figure OR describe how this figure is derived.

Minor

References: many has different format e.g reference nos (a) 1, 2, 4 in different format of author names (b) 4, 9, 20 in different format using et al (3) 21 has no pages etc. Amend the references according to journal format as instructed .