

## ESPS PEER-REVIEW REPORT

**Name of journal:** World Journal of Orthopedics

**ESPS manuscript NO:** 30692

**Title:** RANK-ligand and osteoprotegerin as biomarkers in the differentiation between periprosthetic joint infection and aseptic prosthesis loosening

**Reviewer's code:** 02699644

**Reviewer's country:** New Zealand

**Science editor:** Fang-Fang Ji

**Date sent for review:** 2016-10-17 11:41

**Date reviewed:** 2016-11-02 07:14

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	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"/> The same title	<input 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"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

A good study with a well stated hypothesis and methodology . My question around the methodology would be were the PJI group all diagnosed with positive cultures and if so this should be mentioned. if not a reason given and explanation as to whether these may be aseptic loosening. Also several researchers have shown a variable positive organism growth in 'aseptic' loosening and some mention should be made to this in the discussion. Diagnosing PJI can be very difficult and there may have been some low virulence organisms in the AL group that weren't cultured...comment about this should be made as well.

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**Name of journal:** World Journal of Orthopedics

**ESPS manuscript NO:** 30692

**Title:** RANK-ligand and osteoprotegerin as biomarkers in the differentiation between periprosthetic joint infection and aseptic prosthesis loosening

**Reviewer's code:** 01408945

**Reviewer's country:** Japan

**Science editor:** Fang-Fang Ji

**Date sent for review:** 2016-10-17 11:41

**Date reviewed:** 2016-11-24 13:24

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	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"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good		<input type="checkbox"/> Duplicate publication	
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Plagiarism	<input checked="" type="checkbox"/> Rejection
<input checked="" type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Minor revision
	<input type="checkbox"/> Grade D: Rejected	BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

Manuscript Number: 30692 Manuscript Title: RANK-ligand and osteoprotegerin as biomarker in the differentiation between periprosthetic joint infection and aseptic prosthesis loosening Corresponding Author: Dr. Max Julian Friedrich The reviewer's critiques are as follows. Major criticism: 1. There are many grammatical errors in English. 2. The introduction section is very long. Authors should inventory it. 3. Authors described that between 2010 and 2011 we included 120 consecutive patients. Why dose authors use these old data? 4. Authors repeated their hypothesis frequently. 5. Authors described that we found no significant differences in the mean values of circulating RANKL and OPG in PJI vs. AL or control group, but with a certain trend of lower RANKL concentrations and higher OPG concentrations in the PJI group. These results suggested that there are no worthy to measure RANKL and OPG. Minor criticism 1. Abbreviation must be cited when they appeared at the first time.

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**Name of journal:** World Journal of Orthopedics

**ESPS manuscript NO:** 30692

**Title:** RANK-ligand and osteoprotegerin as biomarkers in the differentiation between periprosthetic joint infection and aseptic prosthesis loosening

**Reviewer's code:** 02699758

**Reviewer's country:** Japan

**Science editor:** Fang-Fang Ji

**Date sent for review:** 2016-10-17 11:41

**Date reviewed:** 2016-11-25 11:15

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	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"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good		<input type="checkbox"/> Duplicate publication	
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Minor revision
	<input type="checkbox"/> Grade D: Rejected	BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

Thank you for giving me the opportunity to review this manuscript. The authors tried to differentiate periprosthetic joint infection (PJI) and aseptic loosening (AL) by the values of serum RANKL or OPG. The results indicated no difference of those markers between PJI and AL. Only RANKL/OPG ratios discriminate between PJI and AL, which is a very interesting finding. The manuscript is well written and concise. I recommend this manuscript is to be published with minor revisions, which indicated below. 1. Accuracy or coefficients of variation for serum RANKL and OPG is recommended to be described. 2. Whether implant is stable or loose is according to the operation record. This judgment is crucial in this paper. There are acetabular component and femoral component in the case with THA and also there are 2 or 3 components in the TKA case. How did operator make judgments? If at least one component is loose, is the case grouped into the loose case? 3. I suggest that preoperative radiography is taken into consideration. Did all patients with PJI or AL have clear zone or loosening sign around the prosthesis on pre-operative radiography? If not, I recommend authors reevaluate RANKL and OPG according to the X-ray findings.