

PEER-REVIEW REPORT

Name of journal: *World Journal of Clinical Cases*

Manuscript NO: 76799

Title: Application of 3 dimension-printed injection-molded polyether ether ketone lunate prosthesis in the treatment of stage III Kienböck's disease: A case report

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05214364

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: China

Manuscript submission date: 2022-04-05

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-04-06 00:24

Reviewer performed review: 2022-04-12 01:37

Review time: 6 Days and 1 Hour

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Peer-reviewer statements	Peer-Review: [<input checked="" type="checkbox"/>] Anonymous [<input type="checkbox"/>] Onymous Conflicts-of-Interest: [<input type="checkbox"/>] Yes [<input checked="" type="checkbox"/>] No
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SPECIFIC COMMENTS TO AUTHORS

The manuscript is interesting and the topic is appropriate for this journal. However, some modifications and improvements are needed to enhance the quality of the case report before it can be accepted publication in the World Journal of Clinical Cases.

1. The description of 3D-printed PEEK lunate prosthesis was inappropriate in this manuscript, as the PEEK prosthesis was injection molded through a 3D-printed mould. The 3D-printed PEEK prosthesis means direct 3D printing technology made prosthesis, which is a different concept from 3D-printed injection molded PEEK prosthesis.
2. The authors need to give a specific follow-up time rather than "at the last visit".
3. The identification of B, C, D and E in the Fig.3 was confused and needed to be revised. The postoperative lateral wrist X-ray view of F showed slight anterior dislocation of prosthetic lunate relative to the distal articular surface of radius, that need to be explained.
4. How does the author get the ROM and GF of Healthy wrist? As far as I know, they should all be a range value.
5. Drawbacks/limitations or future prospects of the PEEK based substitute implant for the treatment of Kienböck's disease should be added in the Discussion.

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Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 03850246

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Doctor, Professor

Reviewer's Country/Territory: Italy

Author's Country/Territory: China

Manuscript submission date: 2022-04-05

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-04-06 09:45

Reviewer performed review: 2022-04-14 08:27

Review time: 7 Days and 22 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
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Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

The paper is well written, the case is of interest and organized in a well structured manner. Please briefly discuss the role (introduction or discussion) of an exogenous material that can act as a drug, a vector, a foreign body etc. etc.. In this regard quote as follows:

- Early Immune Response in Foreign Body Reaction Is Implant/Material Specific. Söhling N et al. Materials (Basel). 2022 Mar 16;15(6):2195. doi: 10.3390/ma15062195. PMID: 35329646
- Foreign body response to synthetic polymer biomaterials and the role of adaptive immunity. Kyriakides TR et al. Biomed Mater. 2022 Mar 4;17(2). doi: 10.1088/1748-605X/ac5574. PMID: 35168213
- Application of 2D-DIGE to formalin-fixed diseased tissue samples from hospital repositories: results from four case studies. Tanca A et al. Proteomics Clin Appl. 2013 Apr;7(3-4):252-63. doi: 10.1002/prca.201200054. PMID: 23090899