

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Nephrology

**Manuscript NO:** 61964

**Title:** Low-Molecular-Weight Dextran for Optical Coherence Tomography May Not Be Protective Against Kidney Injury in Patients with Renal Insufficiency

**Reviewer's code:** 00505314

**Position:** Peer Reviewer

**Academic degree:** FRCP, MD

**Professional title:** Doctor

**Reviewer's Country/Territory:** United States

**Author's Country/Territory:** Japan

**Manuscript submission date:** 2020-12-29

**Reviewer chosen by:** Ya-Juan Ma

**Reviewer accepted review:** 2021-01-21 17:30

**Reviewer performed review:** 2021-01-24 01:15

**Review time:** 2 Days and 7 Hours

<b>Scientific quality</b>	<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 Grade E: Do not publish
<b>Language quality</b>	<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
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	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**

In this single center retrospective study (n=421), the authors evaluated the the impact of low molecular weight dextran (LMWD) on decline in kidney function in patients undergoing per-cutaneous coronary intervention. LMWD was used during optical coherence tomography (OCT). In multivariate analysis, volume of LMWD used and baseline GFR were independent predictors of GFR decline. The authors conclude that "OCT using LMWD may not be protective against worsening renal function in patients with advanced renal insufficiency". The article is written well. I have the following comments/critiques: 1. Even though LMWD is used during OCT in an attempt to reduce the volume of the contrast used, in fact the average volume of contrast used in the LMWD group was 142 ml compared to 130 ml in control group. 2. The term renal insufficiency should be replaced by chronic kidney disease (CKD) and the authors should divide patients in both groups by CKD stages. 3. There were no differences in kidney function at 5 days or 1 month following the procedure. How would the authors explain the differences observed only at 1 year after procedure when no differences were observed earlier. So many factors can impact long term kidney function which could be totally unrelated to the initial procedure. This is a big limitation of the study. There was no mention of the level of proteinuria between the groups which is a strong risk factor for kidney disease progression. The authors should discuss this limitation