

Reviewer 1 comments: The authors investigated the dose of contrast volume in patients who underwent trans-radial percutaneous coronary intervention (PCI) or trans-femoral PCI, using the meta-analysis method. They showed no difference in contrast medium between the two arms. This meta analysis seems to be interesting. As a reviewer, I raised several requests. 1. The authors had better show the total dose of contrast medium between the two arms, if possible. If so, the readers will be easier to understand the results. 2. The authors had better show the size of catheter or sheath between the two arms, because this factors may contribute to the dose of contrast medium. 3. The authors should put the final conclusion in the last paragraph in the "Discussion" section.

Response: We appreciate this reviewer's comments. Per recommendations, the following changes were made:

- We have added mean contrast volume for each group in Table 1.
- We have added to the last paragraph of the Discussion, "In conclusion, this meta-analysis of RCTs showed that in patients undergoing PCI, the amount of contrast volume used was not different between the TRA and TFA arms."
- The majority of the studies did not report guide catheter/sheath sizes; therefore we were not able to add this information to our revised manuscript.

Reviewer 2 comments: Contrast Use in Relation to Arterial Access Site The study analyses the amount of contrast media used during PCI depending on the arterial access site, e.g. trans-femoral versus trans-radial. 13 RCTs were included, and there was no difference between both approaches with respect to the amount of contrast media used. This is a clear message for the coronary interventionalist, but only holds for the group of experienced and trained cardiologists. This major limitation has shortly been discussed in the text, but should be pointed out more clearly. There also should be a comment, why the included studies may not have been evaluating patients after CABG. All included studies must be evaluated according to the Cochrane Risk of Bias table, and this has to be presented in the manuscript. Finally the detailed search strategy has to be outlined and presented, eventually in an appendix of the online version

Response: We appreciate this reviewer's comments. Per recommendations, the following changes were made:

- The issue of generalizability, especially in patients with CABG and to operators who are less-skilled in radial access has been addressed in the Limitations with the addition of the following: "Second, most of the studies were single-centered, and the majority of procedures were performed by radial experts. Furthermore, in a majority of the trials, patients with coronary artery bypass grafts (CABG) were excluded. Therefore, the generalizability of this study may be limited, particularly to operators less-skilled in radial access and to patients with CABG."
- We have added a new figure (i.e., Figure 2) showing the Cochrane Risk of Bias table.
- We have described our search strategy in detail in the Methods. Furthermore, the search flow has been shown in Figure 1.