Reviewer’s report

Title: Do ultrathin strut bare-metal stents with passive coating improve efficacy in large coronary arteries? Insights from the randomized, multicenter BASKET-PROVE trials

Version: 0 Date: 05 May 2019

Reviewer: Ayman Elbadawi

Reviewer's report:

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In this post-hoc analysis authors explored the BASKET-PROVE trials to evaluate the efficacy of a newer generation ultrathin strut silicon-carbide coated cobalt-chromium (CoCr) BMS (SCC-BMS) as compared to an older thin-strut uncoated CoCr BMS (UC-BMS) in patients presenting with coronary artery disease requiring stenting of large vessels (≥3.0mm). Authors found higher risk for clinically driven TVR in the SCC-BMS group compared to the UC-BMS group. No difference was observed in mortality, stent thrombosis, non-fatal MI.

Overall the manuscript is well written. The statistical analysis is sound and appropriate.

Here are some suggestions to improve the manuscript

- The study timeframe and interventions are both outdate and not contemporary, which is the biggest limitation of that analysis. The limitations section should be expanded to comment on the non-contemporary time frame of the study which by itself might not yield similar results in contemporary practice (using more imaging guided PCI/FFR-OCT).

- The use of DES is standard practice as stated earlier in the introduction by authors. Hence, comparing 2 types of BMS might be considered by some as low-yield. Authors should expand more in introduction on contemporary remaining indications of using BMS, to rationalize the need for such analysis.

- The difference in time interval between the BASKET PROVE 1 and 2 trials (4 years) is a major limitation. Since the study is comparing 2 arms which are reflecting possible different practices (4 years spanning many different clinical trials and guideline changes). This should be clarified in the limitations section.
The Pro-kinetic stent, evaluated in this study, has received FDA approval after results of a prospective study BIO-HELIX-1. Authors might comment on the BIO-Helix study and the contrasting results compared to their analysis.

-The double helix design of the PRO-kinetic stent is supposed to improve deliverability into challenging lesions. If authors are able to conduct subgroup/ sensitivity analysis exploring comparative outcomes according to lesions type (bifunctional/ CTO/ calcified lesion) would add to the value of this manuscript. This might identify proper clinical scenarios/ subsets that might benefit from this stent.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

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