

**ESPS Peer-review Report**

**Name of Journal:** World Journal of Methodology

**ESPS Manuscript NO:** 7960

**Title:** Off-pump coronary artery bypass grafting: misperceptions and misconceptions

**Reviewer code:** 02445851

**Science editor:** Qi, Yuan

**Date sent for review:** 2013-12-10 14:15

**Date reviewed:** 2013-12-10 16:56

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input checked="" type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input checked="" type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C (Good)	<input type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)		BPG Search:	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

**COMMENTS TO AUTHORS**

Interesting statement pro off-pump CABG surgery. I think that in general the position is understandable and clear. However, it is my opinion that the statements should be softened not to change the content but to focus more on what are the information missing and/or the weak points in the comparative studies (as already done in the manuscript in several points). For instance the lack of MR LV functional assessment pre-post and pre-LGE viability assessment; the graft patency after CABGs with cardiac CT... these are all strong points to highlight in my view. I am personally in favour of off-pump CABG surgery. But the Authors should consider the fact that the poor experience of many centers and the more comfortable environment provided by on-pump CABG surgery are key factors. So maybe it is not a question of science but a question of penetration of the technique within the cardiac surgery community. In addition, we are in times in which PCI plays a major role even in 3-vessel disease. Sometimes PCI is used to complete revascularization, and so forth... - " A more logical way to address the issue of completeness of revascularization is to use the index of completeness of revascularization (number of grafts performed divided by the number of grafts needed [number of graftable vessels with angiographically significant stenoses]). " This sentence needs a reference

**ESPS Peer-review Report**

**Name of Journal:** World Journal of Methodology

**ESPS Manuscript NO:** 7960

**Title:** Off-pump coronary artery bypass grafting: misperceptions and misconceptions

**Reviewer code:** 00505578

**Science editor:** Qi, Yuan

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CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	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"/> Existed	<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"/> No records	<input checked="" type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)		BPG Search:	<input checked="" type="checkbox"/> Minor revision
<input checked="" type="checkbox"/> Grade E (Poor)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

**COMMENTS TO AUTHORS**

Dr. Raja and colleagues performed a review of literature regarding off-pump and on-pump CABG. The manuscript is written with many bias in favor of off-pump. Several statements are not substantiated by published literature. A large > 60,000 patient observation by Chu, et. al published in Annals of Thoracic Surgery did not show any favorable outcome comparing off and on-pump CABG. Ref 21 by Bakaeen, et. al. showed a decreased long-term survival in Veterans in a large cohort of patients. The appendix of NEJM on the ROOBY trial specifically looked at surgeon's Off-Pump volume experience and their results still holds after adjusting for surgeon volume experience. ROOBY trial EVH is the same in off-pump and on-pump and thus cannot be attributed to decreased SVG patency in off-pump patients. Overall, this manuscript is biased towards off-pump CABG and not substantiated by level I evidence.

**ESPS Peer-review Report**

**Name of Journal:** World Journal of Methodology

**ESPS Manuscript NO:** 7960

**Title:** Off-pump coronary artery bypass grafting: misperceptions and misconceptions

**Reviewer code:** 00214274

**Science editor:** Qi, Yuan

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CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	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"/> Existed	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C (Good)	<input type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)		BPG Search:	<input type="checkbox"/> Minor revision
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**COMMENTS TO AUTHORS**

I have read this manuscript on off pump coronary artery bypass grafting: misperceptions and misconceptions. General remarks. The debate about the advantage(s) of off pump CABG is a kind of endless debate trying to compare the quality of a surgical technique without taking in account the quality of surgeons and of the team involved in patients care. Most of the studies comparing the two techniques were not randomized and the choice of the technique was left to the discretion of the surgeon. This is a major bias. In every study some patients from the off-pump group were converted to on-pump and this is also a significant bias. It seems possible that patients who require intraoperative conversion from off- to on-pump can develop increased morbidity and mortality. Moreover, many studies are performed only on “low risk” patients and are likely to be underpowered. In summary, there is no solid data to guide selection of patients for off pump surgery. The quality of the bypass technique is also variable and hypothermic perfusion with continuous flow, large prime volume, dilution induced crystalloid cardioplegia and abundant blood products use is likely to be significantly worse than warm pulsatile perfusion with miniaturized bypass circuit, warm blood microplegia and few if any blood products use. To my best knowledge, I have never seen this kind of refinement in CPB technique in the manuscript comparing off- and on-pump CABG. Furthermore decrease in systemic inflammation was an expected advantage on off pump surgery but many works failed to demonstrate any difference in systemic inflammation between off- and on-pump surgery, as well as any detectable differences in end-organ damage. Finally there is no convincing fact demonstrating a benefit in term of mortality. I agree that it is disappointing that only 20% of the CABG are nowadays performed with off-pump surgery but this probably means that the advantages are not obvious for the medical community. In 2001 M. Yacoub wrote “current

evidence suggest that OPCAB is gradually establishing its position in practice, but it should continue to be subjected to scrutiny in the foreseeable future” ten years later this is still true. Specific comments: You stated that “larger observational studies that are better powered to statistically compare outcomes have shown more favourable in-hospital outcomes and equivalent long-term outcomes with off-pump and on-pump CABG” but there is only one reference. Please give more references or modify your text. You stated that “off-pump CABG involves less manipulation of the ascending aorta”, and that is true, but an increase incidence of acute dissection of the ascending aorta has been reported in off-pump CABG (Chavanon O. et al. Ann Thorac Surg 2001; 71:117-21). Could you comment please? You stated that “recent studies have demonstrated improve outcomes in higher-risk patients undergoing off-pump CABG”. In fact it is on short-term outcomes in ref 6, without comparative group in ref 17 and the authors conclusion in ref 19 is “however suboptimal quality of the available studies, particularly the lack of comparability of the study groups prevents conclusive results on this controversial issue”. About graft patency, beside your criticism of published studies demonstrating suboptimal graft patency during off-pump CABG, have you any reference demonstrating equivalence in graft patency? It is purely speculative to state that long-term follow-up data for recently conducted randomized trials will resolve the controversy. In summary this is an interesting manuscript demonstrating limitations in meta analysis on the comparison between off- and on-pump surgery. However, I suggest rewriting this manuscript with an absolute objectivity and with a clear distinction between the facts observed and the expected facts, as well as between results demonstrating something and results suggesting something.

# ESPS Peer-review Report

**Name of Journal:** World Journal of Methodology

**ESPS Manuscript NO:** 7960

**Title:** Off-pump coronary artery bypass grafting: misperceptions and misconceptions

**Reviewer code:** 02518353

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CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	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"/> Existed	<input type="checkbox"/> High priority for publication
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## COMMENTS TO AUTHORS

The authors may consider summary main findings in the abstract.