Peer review file

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Reviewer A

Comment 1: LVEF in itself is not sign of cardiac insufficiency and hence need for inotropic support. Can a physiological assessment of cardiac output/insufficiency with either CPET or RHC can help guide need for peri-op inotrope successfully and hence, minimize empiric use of inotrope? Accordingly, can author explain/ellaborate on why around 50% of patients in each grp needed inotrope support. More specifically, why in patients with normal LVEF. Was it is due to decreased LVEF peri-op? graft dysfunction? air embolism? RV dysfunction?

Reply 1: We agree with the comment. CPET or RHS are effective tools to evaluate cardiac output/cardiac function, however, due to economic reasons and diagnostic convenience, neither CPET nor RHC is regularly adopted to evaluate pre-operative cardiac functions among patients with coronary heart disease in our center. Instead, echocardiography is being used frequently. In terms of post-operative decrease in cardiac function, it is true that myocardial stunning,or injury can occur due to cardiopulmonary bypass and surgical trauma, which may lead to deterioration of cardiac function.

Comment 2: In the same line of thought is it wise to introduce beta blocker in all patients undergoing CABG as in patients with borderline or low cardiac reserve acute BB can precipitate decompensation? It is now becoming clear that denovo BB aroudn CABG might worsen outcome. Can authors elaborate on BB use in their pts?

Reply 2: Thanks for the comment. Beta-blockers are given after extensive evaluation of hemodynamic status. We believe, when hemodynamically stable, BB as one kind of negative inotropic agent, can reduce oxygen consumption from myocardial cells, leading to better long-term prognosis.

Reviewer B

Major comments:

Comment 1: The reporting of this observational cohort study could be improved by adhering to the recommendations in the STROBE statement (https://www.strobe-statement.org).

Reply 1: Thank you for your recommendation. As this is a research letter, a word limit of 1000 is imposed by the journal. Therefore, it's hard for us to adhere fully to the STROBE statement.

Comment 2: Please clearly state exposure and main outcome measure(s).

Reply 2: Thanks for pointing out the unclarity of exposure and main outcome measures. Exposure was low LVEF. The primary outcomes were in-ICU mortality and major cardiovascular complications (arrhythmias, acute myocardial infarction, cardiogenic shock and stroke). Secondary outcomes were length of ICU and hospital stay, incidence of septic shock, need for mechanical ventilation lasting longer than 48 h, need for renal replacement therapy and ICU readmission rates. These measures were all chosen based on a recent RCT. *[Franco, R.A., de Almeida, J.P., Landoni, G. et al. Dobutamine-sparing versus dobutamine-to-all strategy in cardiac surgery: a randomized noninferiority trial. Ann. Intensive Care 11, 15 (2021). https://doi.org/10.1186/s13613-021-00808-6]*.

Comment 3: How was the study population selected? Why did you include only 90 patients from a total of 1242 patients who underwent surgery 2018-2020? If the standard procedure at your center is off-pump CABG, why did you include on-pump CABG?

Reply 3: The primary purpose of this letter is to make comparisons to an RCT report.*[Franco, R.A., de Almeida, J.P., Landoni, G. et al. Dobutamine-sparing versus dobutamine-to-all strategy in cardiac surgery: a randomized noninferiority trial. Ann. Intensive Care 11, 15 (2021). https://doi.org/10.1186/s13613-021-00808-6]*. Therefore, we only included on-pump CABG. As OPCAB is the routine procedure in our center, the number of on-pump CABG is limited.

Comment 4: Patients were not randomized to receive dobutamine and therefore, it is by design very difficult to assess if the treatment is effective or not.

Reply 4: Thanks for the comment. We acknowledge that patients were not randomized as this is a retrospective study. All patients underwent CABG in our center followed a dobutamine-sparing strategy. We use inotropes in CABG patients as little as possible: dobutamine is not routinely given to CABG patients but only reserved for those who are complicated with low cardiac output syndrome. We agree with the comment and RCTs are needed to validate our opinions.

Comment 5: The doses of dobutamine and norepinephrine were unknown which makes it even more difficult to assess the effect of treatment.

Reply 5: Thanks for the comment. We acknowledge the limitation. The doses of dobutamine and norepinephrine were not elaborated in the manuscript and different doses of dobutamine or epinephrine may have different impacts on the recovery of myocardial functions and clinical outcomes. This letter intends to offer viewpoints and experiences concerning the use of dobutamine in post-CABG patients, and RCTs are needed to validate our opinions.

Comment 6: Please clarify if ethical approval was obtained.

Reply 6: This study is a retrospective study and no prospective intervention was given to patients. All patients or their legal representatives have signed informed consents to share their data in clinical studies. According to regulations of hospital ethical committee, no ethical approval was required.

Reviewer C

Comment: The Dobutamine sparing strategy in cardiac surgery is a good idea and I accept the idea of your study. The manuscript has good method and was well written. The conclusions help in everyday practice.

Therefore, the adoption of a dobutamine sparing inotropic strategy in cardiac surgery

is a good idea. I accept the idea of this manuscript. The method was simple and good. The conclusions help us in everyday practice.

Reply: Thanks for your comments.