

Reviewer's comments

Reviewer number 1

Interesting and challenging case report highlighting the use of impella during complex cases and the importance of other vascular access use excellent illustration of the value of hemodynamic support during a high risk and complicated procedure giving the operators time to do an excellent job with a very nice result

Thank you very much for your kind comments.

Supplementary file legends are not available

Unfortunately there is no option in the WJC submission website to upload supplementary material – it was a couple of videos of the coronary angiograms.

Coulotte should be replaced by culotte on pag 5

Apologies for the typo and thank you for your well spotted comment. Now corrected.

Reviewer number 2

Comments to the case report entitled ubclavian Impella 5.0 to the rescue in a NSTEMI patient requiring unprotected left main rotablation; a case report (MS No 52181) This reviewer agrees that this case was well treated successfully despite the clinical and lesion characteristics of high risk. Maybe, PCI for this clinical setting (left ventricular heart failure +rotablator for LMT lesion) was impossible without Impella. However, This reviewer does not think the originality of this treatment using Impella 5.0 is not high in the academic articles. I have some concerns about this case.

Major: 1. *The heart team agreed on the urgent CABG. During the following a couple of days what was done as check-up and what else was more necessary before CABG?*

Thank you for your comment. He had his carotid ultrasound, a formal departmental echo and lung function tests).

The bifurcation LMT lesion with 3 VD (including CTO) is clearly the candidate of CABG as the heart team decided. One of the other potential strategies could be urgent CABG after the hemodynamic stabilization by Impella with/without IABP.

That is a fair point and thank you for highlighting it. In our centre, generally our cardiothoracic surgeons would rather not operate on cases that are “hot”, as in ECG changes and ongoing pain due to increased mortality. As stated in the manuscript this gentleman was having frequent recurrent episodes of chest pain with electrocardiographic ST shifts hence the surgeons turned to PCI as the preferred strategy. I must say the idea of cooling him down with an Impella and potentially performing off-pump surgery with Impella in situ is also an excellent alternative and we have now included it in our discussion. Thank you.

2. *Left common femoral artery and iliac artery does not look like severely atherosclerotic in Figure 1.*

Thank you for your comment. The minimum internal diameter for the external iliac on the left side was 3.0mm. As you can see in the middle panel of Figure 1 (the black and white one), there is extensive heavy calcification of the lumen. The operators have large TAVI and large bore access experience and after careful reviewing of the cross-sectional images they agreed that the iliofemoral axis was not amenable to percutaneous Impella CP

3. *Even if the treatment strategy in this case was reasonable, the adaptation of impella in this case was ordinary rather than rare or outstanding. Furthermore, collaboration*

with cardiac surgeons is indispensable requirement when using Impella. Thus, it could not be emphasized in the discussion/conclusion.

Thank you for your comment. What we believe makes this case special is the setting – a patient with unstable ischaemic symptoms that requires urgent revascularization with mechanical circulatory device support. In various institutions the coming together of cross-specialties in acute cases can be challenging, yet very efficient. This has now been highlighted in the discussion – Page 6 – the word “unstable” has been added.

4. Although the authors described that alternative access sites should be considered including the surgical cut-down subclavian/axillary options, this had already recommended in the product specification.

Thank you for your comment. We have now changed the take away message and enriched our discussion with alternative access reports and publications.

Minor: 1. Page 5 line 2: The heart team agreed on urgent in patient coronary artery bypass grafting Is this sentence grammatically correct? “in patient” is necessary?

Thank you for your comment. This has now been deleted.