

Thanks for the the valuable comments on our manuscript entitled “Drug-coated balloons for treating de novo lesions in large coronary vessels: a case report”. We revised the manuscript accordingly (marked red) and below are our point-to-point responses to you.

1. The idea itself is nice however, there is NO justification for this case to have a drug coated balloon alone without a stent. This should be justified before considering acceptance of the case. Very interesting case indeed. However, in a near total occlusion of the LAD I do not think a lot of physicians would agree on not stenting the artery specially that the PTCA wire did not pass and you had to dilate multiple times to open it up. What was the justification of just drug coated balloon without any stents? How did you make sure that there were no residual dissections after the PTCA as you dilated with a 2.0 balloon and 3.5 cutting balloon in addition to the drug coated balloon? Was it IVUS guided? The ostium of the large diagonal branch seems healthy and this is a provisional stent bifurcation technique.

The reason why drug-coated balloons were chosen instead of stents was that the patient did not develop coronary coarctation after pre-dilatation with 2.0 balloons and 3.5 cutting balloons, and the residual stenosis was less than 30% in the visual view on repeat angiography, and the patient was not very old, so after discussion with the family, it was decided to try to perform DCB implantation.

Early application of the cutting balloon would spread out the intima of the vessel and avoid the detachment of the whole piece, and then there is the selection of the cutting balloon to try to choose a 1:1 diameter with the target vessel.

IVUS was not used considering the economic factors of the patient.

2. The manuscript, "Drug-coated balloons treat De Novo lesions in large coronary vessels: a case report" , is well written and a very interesting case report on endovascular treatment (EVT) of De Novo lesions in large coronary

vessels. However, in order to provide more incremental value to the existing literature base, please consider the following revisions. I appreciate that these revisions will take some time and effort on your part, but I am confident that they will improve the quality and impact of your submission. A few comments

Background: There is strong evidence that DCBs are effective in peripheral interventions. Can you apply this evidence to coronary artery interventions?

Case presentation: Was heparin given during the procedure? The inflation time and pressure of the DCB – was it according to recommendations? Was the follow-up only on December 19, 2021, or were there some additional follow-ups? If so, was CTA performed, and how were the results?

Discussion: Can you specify the advantages of pre-dilatation in more detail?

In the face of the increasing number of studies on drug-coated balloon implantation in large vascular lesions, we have successfully treated neoplastic lesions in large coronary vessels using drug-coated balloons, highlighting the potential of this new approach in medicine and providing a case reference for others to follow.

A total of 8,500 U of heparin was given during the procedure, 3,000 U was given for successful puncture and 5,500 U was given before treatment.

The inflation time and pressure of the DCB was it according to recommendations. We used a named pressure and an inflation time of 60 seconds.

The patient was followed up only on December 19, 2021, with subsequent loss of contact.

Thanks and this point is well taken. We revised and explained in the introduction.

It reads now (page 3, line 89-91;page 4, line 140-145):

Repeated imaging results revealed no entrapment, no aneurysm, no thrombosis, and 20% residual stenosis (Figure 1E-F). A total of 8,500 U of heparin was given during the procedure, 3,000 U was given for successful puncture and 5,500 U was given before treatment. The patient did not

experience any particular pain during the procedure or thereafter.

Non-compliant balloons or cutting balloons can be used for appropriate pre-dilation in cases with severe residual stenosis, but the cutting balloons must be progressively compressed and released. The pre-expansion can open up the access and can guarantee the results of the procedure, especially with the application of cutting balloons and vibrating balloons. They can cut the severe calcified lesions, prevent the appearance of elastic retraction, so that it is more fully dilated, but also able to make the surgical effect will be maintained longer, in de novo large vessel lesions, cutting balloon should be in front, so that the risk of coronary artery entrapment is small. Following pre-dilatation, if residual stenosis is less than 30%, TIMI blood flow level is grade 3, and there is no dissection of type C or above, DCB therapy can be initiated [4].

Revision reviewer

Specific comments to authors

The language, grammar and medical terms should be thoroughly revised eg; drug-coated balloons were chosen instead of stents was that the patient did not develop coronary coarctation after pre-dilatation

Reply: Corrected to "Because the patient did not experience coronary artery dissection following pre-dilatation with a 2.0 balloon and a 3.5-cut balloon, the residual stenosis was less than 30% on repeat imaging in the naked eye, and the patient was not very old, it was decided to try DCB implantation after consulting with the patient's family." I thoroughly revised the language, grammar and medical terms

Thanks