


ICVTS on-line discussion A

Title: How distal is distal?

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eComment: I appreciate Mr. Jalal’s attempt to come up with such a bold idea of having an objective scoring system for the diffuseness of the distal coronary artery disease by probing the coronary artery [1]. I agree the author has not seen any complication of coronary probing but the reason for this could be the intentional extra care taken to avoid any such complication for the sake of the study.

Firstly, we do not have any objective scoring system for the diffuseness of the coronary artery disease but the clinical decisions of offering the benefits of CABG surgery are made not by merely looking at the two-dimensional coronary angiogram, rather it is the symptoms of the patients in the presence of such disease which lead us surgeons to perform surgery in diffuse coronary artery disease. Secondly, the distal runoff of the vessel can only be judged by careful and attentive examination of the coronary angiogram before surgery. Coronary probing might tell us the presence or absence of the distal disease in the varying form of severity but by the time we would do this it would be very late for the patient. My question to the author is: what will be his strategy once he has opened a coronary artery and has quantified the distal disease, by probing, as severe? Is he going to leave that coronary as it is or graft it there or is he going to graft it distally?

Lastly, its requirement of the time now to develop such a scoring system and it is a very good attempt by the author but to me it appears that we surgeons are going to have another excuse in our sleeves for the explanation of our mortality.

Reference


ICVTS on-line discussion B

Title: And what about skills upgrading?

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eComment: I appreciate the effort made by Dr. Jalal [1]. I would like for him to clarify if the use of the transient flowmeter on a regular basis improves the surgeon’s skills in regard to the quality of anastomoses before and after long term use of this tool.

Reference


ICVTS on-line discussion AB1

Title: Author’s reply to comments of Aboul-Azm and of Iqbal

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eResponse: I welcome the comments made by AN Aboul-Azm and by MA Iqbal. The points raised by them are, in general, beyond the scope of this paper [1]. However, I would like to reply as briefly as possible.

1. Referring to Dr. Aboul-Azm, I am pleased to confirm that regular use of transit time flow measurement (TTFM) does improve the quality of grading. But even more important is its role in improving the understanding of coronary artery disease and the dynamics of flow in diffusely diseased vessels. Let me mention only two very important points which we learned from regular use of TTFM. Firstly, we discovered that digital palpation of grafts provides no useful information about the quality of flow: a totally shut off graft can have excellent pulsation. Secondly, we learned that hemodynamic instability with or without ST-changes in ECG is almost always associated with poorly functioning graft to an important vessel. In such situations it is pointless to waste time on manipulation of inotropes. Revision of poorly functioning graft, identified on TTFM, improves the hemodynamics immediately.

2. Regarding Dr. Iqbal’s comment on decision to perform CABG, I must reassure him that grading of coronary arteries has no role in patient selection. Like all surgeons, I accept patients for CABG entirely on two grounds i.e. symptomatic improvement and prognostic advantage. Very frequently, I have to accept patients for surgery with miserable nearly end-stage disease. It is obvious in these patients that the target coronaries are going to be challenging and would require more than just simple anastomoses. Interestingly, in these patients, the angiograms provide no direct information regarding distal run off. The decision of managing such coronaries is neither made nor changed after opening them up. The surgical plan is usually very unconventional and is made much earlier before entering the operating room.

3. I do not agree with the comment that the grading would provide another excuse for poor results. The previous studies [2, 3] which incriminated diffuseness of disease for increased mortality used flawed definitions of diffuse disease. I believe diffuseness, if defined properly, has no role in operative mortality. However, it does have impact on short as well as long term patency of grafts. The analysis of my unpublished data supports this belief and I am planning to publish it soon. I hope others will also use this grading system to look at their mortality and morbidity and enlighten us in due course.

4. In summary, the sole objective of proposing a grading system is to provide a common language so that when we say mild, moderate and severe all of us should mean the same thing. This would help us understand the behavior of innovative grafting methods like long patches and endarterectomies in different grades of disease. Probing of vessels would remain a concern for some but I believe modern imaging modalities like CT and MRI may, in the near future, obviate the need of preoperative size estimation.

References

