We have read the article by S. Westaby et al.¹ [1] with great interest. The authors suggest that ‘the site of right coronary re-implantation should be determined only after anastomosis of the distal dacron graft to the native aorta’. Unlike Dr Westaby we do not mobilize the coronary arteries and re-implant the right coronary ostium before performing distal aortic anastomosis. We believe that extensive mobilization can cause kinking or torsion of the coronary arteries.

Since in most cases the aortic root is dilated, the distance between the annulus and the coronary ostia is large enough to be able to implant the coronary arteries in the conduit after excision of the coronary buttons without any additional mobilization. We also believe that the aortic wall should be resected as closely to the annulus as possible, since the remaining aortic wall can cause an external impression of the implanted coronary arteries (Figs. 1 and 2).

If the conduit is already anastomosed distally and thus fixed, tension may develop during re-implantation of the right coronary artery at the distal circumference of the suture. In this case the interposition of a pericardial strip described by Westaby would be a sensible measure to avoid this tension. However, we have not seen the necessity for this or similar procedures in our patients in whom the right coronary artery was always re-implanted before distal aortic anastomosis was performed.

Since January 1995 we have carried out replacement of the aortic valve and ascending aorta in 185 patients, 20 of whom (11.9%) had dissection of the aortic wall. The perioperative mortality was 2.2% (four patients).

The coronary arteries were anastomosed to the conduit using the Cabrol technique in only two patients (both of whom had acute dissection following prior aortic valve replacement). In all other cases the ascending aorta was completely resected and the coronary ostia cut out of the aortic wall as Carell patches. In five cases the right coronary artery was revascularized by means of a venous graft. The reason for this was aortic wall calcification around the ostium in four patients and complete dissection of the proximal right coronary artery in one patient.

The development of a pseudoaneurysm at the site of re-implantation of the coronary ostia is also a rare event in our patients. Up to now we have seen only one case of pseudoaneurysm, which developed in the fifth postoperative year and originated from the left coronary ostium.

References

¹ These authors were invited to publish a reply but did not respond.