

small proportion of extreme obese patients in our study population. Therefore the letter of Dr. Totaro is a valuable completion of our study. In his patient population, about 28.6% had a body mass index (BMI) > 30 and about 5.8% had a BMI > 35 < 40. It is clear, this Welsh population is more obese than the described Dutch population. In both studies there is a significant increase of sternal wound problems in the obese group. However, we have no difference in ventilation time, Intensive care and hospital stay. Totaro, and also others [2] have a significant difference of these variables. But also Totaro do not mention if this difference is directly related to obesity or is a result of the increased incidence of wound infections as suggested by Kudivalli et al. [3].

Neither Totaro, nor our study shows a significant difference in mortality. This is interesting because both studies have only a limited number of patients with a BMI > 40. and it is only Prabhakar, with a large group of patients with a BMI 40 shows this increased mortality risk. ([2]

In conclusion we agree with Dr Totaro that the degree of the obesity plays a key role in increasing postoperative morbidity and even mortality.

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doi:10.1016/j.ejcts.2004.12.016

Letter to the Editor

Embolisation, inflammatory reaction and persistent patent false lumen: is biological glue really effective in repair of type A aortic dissection?

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Received 11 November 2004; accepted 17 December 2004; Available online
13 January 2005

Keywords: Aortic dissection; Biological glue; Embolisation

We read with great interest the case report presented by Hoschitzky and co-workers on a patient with acute coronary syndrome following repair of aortic dissection [1]

and we would like to present our personal experience on pathologic findings after glue repair of the proximal aorta to add further informations on this field. My colleagues and I have started the routine utilization of gelatine resorcin formalin glue (GRF) in the treatment of type A aortic dissection in 1994 on a consecutive series of 66 patients and in all cases the dissected aorta was completely resected preparing the two cuffs with GRF to obliterate the false lumen (we underline that the glue was applied just in the aortic wall dissected not in the depth of the false lumen) and external strips of Teflon felt to reinforce the wall, and then sutured to a vascular graft. The aortic valve was replaced in two patients and preserved in the remaining cases.

The overall hospital mortality was 18.2% (12/66). The contrast-enhanced computed tomography performed at follow-up demonstrated the presence of patent distal false lumen in six patients.

One patient died 15 days after the operation with the evidence at the autopsy of a point of reentry of the dissection into the true lumen at the origin of the innominate artery together with the presence of particles of polymerised glue in the false lumen and multiple small cerebral lesions as ischemic infarction. The presence of inflammatory reaction and signs of wall weakness has been found in one reoperation: in this case the presence of redissection was evident in both proximal and distal suture lines.

On the basis of our 10-year experience on surgical emergency treatment of acute type A aortic dissection the results using GRF glue are encouraging, but not so enthusiastic as recently reported by Others [2]. It is evident in Literature that preoperative cardiac tamponade, renal failure and neurological alterations must be considered as independent risk factors for mortality irrespectively from the use of a biological glue and the persistence of a false lumen with consistent risk of redissection is related to the preoperative anatomical findings. The incidence of a persistent patent false lumen lead us a little caution on the analysis of all results that report low operative mortality, low postoperative complications, high freedom from reoperation related to a single factor as the correlation between GRF and pathophysiological findings of inflammation and/or necrosis causing aortic redissection.

We agree with the Authors of the article presented in the recent number of the European Journal [1] that the acute obstruction of the left anterior descending artery probably is strictly related to embolisation of fragment of glue (Bioglu) and, on the other hand, we believe that a preoperative coronary angiography in absence of a pre-existent and documented coronary disease is more dangerous than helpful.

Finally, we are grateful to Hoschitzky and associates for the opportunity of a further and useful debate of an old disease that continuously presents new insights.

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doi:10.1016/j.ejcts.2004.12.018

Reply to the Letter to the Editor

Reply to Mastroroberto et al.

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Received 15 December 2004; accepted 17 December 2004; Available online
13 January 2005

Keywords: Great vessels; Coronary disease; Myocardial infarct

We would like to thank Mastroroberto and colleagues for their comments on our paper [1]. Their described experience with gelatin-resorcin-formalin (GRF) glue in the surgical treatment of acute type A aortic dissection is interesting. As they rightly state, despite Hata's recent findings [2] on the significant survival benefits of using GRF glue in the treatment of aortic dissection, its' use does have complications. GRF glue has been associated with destruction of the aortic media, causing thinning of the vessel wall and rupture [3]. It has also been associated with migration and embolisation to the brain [4] and coronary ostial stenosis. Even though Bioglue is supposed to be less toxic than GRF glue, it is also more liquid and potentially more likely

to reach the vessel lumen. Therefore, it could theoretically embolise. Coronary embolisation of Bioglue after aortic dissection repair in the early post-operative period, was one of a few possible causes of the clinical picture we encountered in our case [1]. Mahmood and colleagues [5] describe a similar case with unfortunately fatal outcome. In their case, Bioglue had embolised to both left and right coronary arterial trees as shown by post-mortem, causing fatal right ventricular dysfunction. Biological glue should therefore be used with caution. As to the subject of pre-operative angiography, we agree with Mastroroberto and colleagues that it may be detrimental to the patient in most cases. We feel it may only be indicated in those cases when the patient is haemodynamically stable and a very high index of suspicion of coronary artery disease is present.

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doi:10.1016/j.ejcts.2004.12.019