By analysing the reoperated patients we found that the group of surviving patients had a lower EuroSCORE, a shorter time on the ECC and a shorter time to re-exploration.

The haemorrhage was differentiated in coagulopathic and surgical. In total, 56.4% of the patients had surgical bleeding.

Patients with high EuroSCORE, low EF, low BMI, DM, preoperative s-creatinine >134 µmol/l and procedures other than CABG should have a very carefully planned operation. Preoperatively, discontinuation of pertinent medication and screening coagulation in blood samples could reduce coagulopathic bleeding. Initiatives such as checklists, action cards, guidelines and regular audits can help reduce surgical causes for reoperation due to bleeding. It is mandatory to strictly follow guidelines regarding reoperation for postoperative bleeding and thereby possibly reduce the amount of time and blood spent before performing a necessary reoperation.

Conflict of interest: none declared.

REFERENCES


eComment. Postoperative bleeding in cardiac surgery: the issue is not resolved yet

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doi:10.1093/icvts/ivs126
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I read with great interest the article by Kristensen et al [1]. They showed an incidence of reexploration for bleeding after cardiac surgery of 7%. Also, it was found that low ejection fraction, high EuroSCORE, procedures other than isolated coronary artery bypass graft surgery (CABG), prolonged time on extracorporeal circulation, low body mass, and others were significant risk factors for reoperation for bleeding. Indeed, operative mortality (15.8%) increased by three times for reexplored patients.

It is noteworthy that not only the reoperation for excessive haemorrhage per se had a negative impact on operative mortality and morbidity. Christensen et al [2] demonstrated that postoperative haemorrhage exceeding 200 ml/h in any single hour or part thereof, or 2 ml/kg/h for 2 consecutive hours in the first 6 hours after surgery, or > 495 ml in the first 24 hours was associated with a higher 30-day mortality and other major postoperative complications. In fact, death at 30-day after surgery increased from 5.5% to 22.4% in the postoperative haemorrhage group.

When postoperative haemorrhage was present, reexploration for bleeding occurred in 50% of the cases. Postoperative haemorrhage was also associated with ICU stays > 72 h, and mechanical ventilation > 24 h. Possible explanations for these circumstances include more blood transfusions, a more hypovolemic status, and systemic hypotension resulting in secondary organ failure, such as prolonged respiratory support, the need for renal replacement therapy, and a higher incidence of systemic inflammatory response syndrome. Vivacqua et al. [3] have demonstrated that both greater blood transfusion and reoperation for excessive haemorrhage are independently associated with an elevated risk of mortality and major morbidity.

Traditionally, the decision to perform resternotomy is based on conventional guidelines: drainage of > 500 ml in the first hour, > 800 ml in the first 2 h, 900 ml in the first 3 h, 1000 ml in the first 4 h, 1200 ml in the first 5 h, sudden massive bleeding, or cardiac tamponade. However, the important point here is that postoperative bleeding, according data mentioned in [2], may carry a higher risk of major complications and early mortality, even when the patient does not require reoperation for bleeding.

References

