implementation of a new sizing strategy based on the orifice area and three-dimensional configuration of the aortic leaflets (including leaflet thickness) sounds like an interesting approach and we will be happy to see Yurekli’s data for this hypothesis.

REFERENCES


LETTER TO THE EDITOR

Haemostatic management in high-risk cardiac surgery: a role of recombinant factor VIIa (NovoSeven RT)†

Mate Petricevic*, Bojan Biocina, Sanja Konošic and Ivan Burcar*

Department of Cardiac Surgery, University Hospital Center Zagreb, Zagreb, Croatia
Department of Anaesthesiology, University Hospital Center Zagreb, Zagreb, Croatia
*Corresponding author. Department of Cardiac Surgery, School of Medicine, University of Zagreb, Kispatrićeva 12, 10000 Zagreb, Croatia. Tel: +385-1-2367529; fax: +38-1-52367531; e-mail: petricevic.mate@gmail.com (M. Petricevic).

Received 31 December 2011; accepted 18 February 2012

Keywords: Recombinant factor VIIa • Factor VII • Haemorrhage • Re-exploration

We read with great interest the recently published retrospective study by Chapman et al. [1]. The authors matched 236 patients with recombinant factor VIIa (rFVIIa) administration with a control group of 213 patients without rFVIIa treatment. The majority of procedures involved coronary artery bypass graft surgery: 51.7% in the rFVIIa group and 53.5% in the control group. We are interested whether those patients were preoperatively exposed to anti-thrombotic therapy with acetylsaliclyc acid and/or clopidigrel. If so, was the proportion of patients with either mono or dual preoperative anti-thrombotic therapy different among the groups? Did the authors perform a platelet function test prior to the procedure in order to determine the platelet function? The acquired platelet function disorder plays a major role in perioperative bleeding in cardiac surgery. Therefore, the use of point-of-care suitable platelet function analysers seems to be reasonable in this field.

The rFVIIa group had a significantly higher rate of re-operation for bleeding, a two fold increase in the use of blood products and, more frequently, had pulmonary complications. In addition, Hacquard et al. [2] have reported 20% of patients with rFVIIa administration who continued to bleed severely despite rFVIIa therapy.

The rFVIIa group received rFVIIa after bleeding had not responded to traditional therapy, and some of the patients received one or two additional doses. It remains unclear whether the traditional blood component administration was targeted after intraoperative thromboelastography haemostatic property assessment. Spiess et al. have reported thromboelastography-guided haemostatic management to significantly reduce the incidence of the overall transfusion and mediastinal re-exploration due to excessive bleeding [3]. Targeted therapy enables more efficient haemostatic management, based on functional deficiency, thus leading to lower dosages of blood component therapy. Furthermore, thromboelastography-guided haemostatic therapy with the reduced and targeted procoagulant blood component administration can reduce respiratory complications. Optimization of haemostatic properties, guided by thromboelastography, can lead to diminished use of rFVIIa and, if rFVIIa is deemed necessary, its efficiency could be better after functional haemostatic property optimization. We believe that intraoperative haemostatic property optimization guided by viscoelastic tests of whole-blood coagulation and platelet function should precede rFVIIa administration. Such an approach can improve the rFVIIa efficiency and therefore diminish the 11% prevalence of patients requiring re-exploration despite rFVIIa administration. In our experience, algorithms for perioperative coagulation management based on the point-of-care testing permit a fast diagnostic and goal-directed therapy of coagulation and functional platelet disorders with only sporadic need for rFVIIa administration. We congratulate the authors on their elegant and timely research.

†The corresponding author of the original article [1] was invited to reply, but did not respond.
REFERENCES

