Reviewer's report

Title: Polymorphisms on PAI-1 and ACE genes in association with fibrinolytic bleeding after on-pump cardiac surgery

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Reviewer: Zsolt Molnar

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In this paper the authors evaluated the effects of gene polymorphism on postoperative blood loss after cardiac surgery. They found that carriers of PAI-1-844 G/G and ACE Intron I/I had significantly larger blood loss as compared to patients with other genotypes. They suggest that based on these results screening for genetic polymorphism may become a part of preoperative assessment and helps to individualise haemostasis management of these patients.

Major Comments

The idea fits nicely into current trends of aiming to individualize critical care. Methods are sound, results are convincing and the limitations are more-or-less pronounced in the appropriate section of the manuscript.

My only concern is, that although the authors blame increased fibrinolysis for increased bleeding due to the found gene type, but apart from D-dimer measurements there is nothing else to prove it. It is bit disappointing to me, that such sophisticated laboratory measurements are not accompanied/reinforced by objective measurements, such as thrombelastography (TEG or Rotem), which has become a routine POCT diagnosis in most European centres. Would you please comment on that and a sentence or two would be required in discussion as well.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests