Reviewer's report

Title: Thromboelastographic Evaluation of the Effects of Recombinant Factor VIIa on Dilutional Coagulopathy

Version: 1 Date: 2 November 2004

Reviewer: Jørgen Ingerslev

Reviewer's report:

General
In this manuscript authors report to their ex vivo study of whole blood exposed to haemodilution with HES. In the model, distinct changes were observed in the profile of whole blood clotting using a roTEG thrombelastograph signifying deficient coagulation. Authors tested whether addition of recombinant factor VIIa could alleviate the HES induced coagulopathy but found no beneficial effect of this coagulation factor on the course of the clotting process. Based on numerous case-reports on dramatic effects of rFVIIa in serious bleeding problems authors are beinlered finding no effect of rFVIIa in haemodilution coagulopathy with HES, and conclude that their model was unable to show an effect because of systematic methodological problems. This conclusion may be wrong, and the data presented are too sparse to show whether the method or the drug is the cause of no effect.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

The work presented should be expanded, if the right conclusions are to be made. For instance, a single dose-level of rFVIIa is insufficient to justify the conclusions drawn. Titration using various dose levels is required. Likewise, authors should study a "positive control" i.e.: the effect of rFVIIa in their model using blood from a patient undergoing warfarin treatment. In that condition, rFVIIa should normalise the abnormal clotting profile. Also, authors should try once again to seek evidence of any report published showing effective haemostasis with rFVIIa was really dealing with HES dependent haemodilution. The best guess of this reviewer is, that no such reports exist, and further that rFVIIa may not at all provide improved haemostasis in HES induced coagulopathy.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable
Statistical review: No

Declaration of competing interests:

No conflicts of interests