Reviewer's report

Title: Thrombosis During Off Pump LVAD Placement in a Patient with Heparin Induced Thrombocytopenia Using Bivalirudin

Version: 1 Date: 5 September 2012

Reviewer: Robert Michler

Reviewer's report:

Thank you for the opportunity to review this manuscript. This is an interesting topic and the authors have described a challenging situation. However, I do not feel that this manuscript is currently in a condition that would favor publication.

I have several specific concerns:

1. The authors only report one ACT as having been performed. This is highly unusual and I wonder if the authors have forgotten to mention the other ACT values, especially ones performed at the time of noticing clots. Did the authors conduct any other coagulation studies? These would certainly add to our understanding of the case.

2. With regard to the LVAD implant technique, it is surprising to this surgeon that the authors would pre-clot the device prior to preparation of the inflow cannulation site. In a patient with suspected clotting issues, one would think that the LVAD implantation team would backfill the device at the last possible moment prior to LVAD connection.

3. I feel that the authors place far too much emphasis on Bivalirudin and its mechanism of action, rather than the obvious technical limitations of their implantation technique.

   It seems as though the authors were more focused on performing an off-pump LVAD implantation than they were on specifically managing a complex hematologic problem.

4. I am not sure that the authors should be so quick to highlight the fact that this was the first attempted case with off-pump LVAD placement using Bivalirudin. This was a failure of technique, specifically attempting to perform this off-pump and backfilling the device prematurely rather than a primary problem with Bivalirudin.

In summary, the authors should consider redirecting their emphasis and claims. They should acknowledge the limitations of their surgical technique.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being
published

**Declaration of competing interests:**

I declare that I have no competing interests