**Reviewer's report**

**Title:** Antiphospholipid syndrome; its implication in cardiovascular diseases

**Version:** 1  **Date:** 19 July 2010

**Reviewer:** Dimitrios Angouras

**Reviewer's report:**

This is an interesting and comprehensive review of antiphospholipid syndrome and its implications in cardiovascular diseases. It adequately serves its purpose, namely provide a fair amount of recent information regarding pathophysiology, diagnosis and treatment of this challenging pathologic entity, specifically focusing on its relation with cardiovascular surgical procedures. I, therefore, think that it deserves publication in the Journal of Cardiothoracic Surgery.

**Major Compulsory Revisions:** None

**Minor Essential Revisions:**

1. The paragraph titled “Significance of HIT II in APLS patient” merely provides a brief description of HIT but its “significance” or association with APLS is not depicted. Obviously both HIT II and APLS are associated with thrombotic complications but apart from a case report in which HIT II and APLS coexisted in a patient operated upon for multiple right atrial masses [Leissner K et al. J Card Surg 2007;22:78-82] (cited by the authors - #53), there is not any documented pathophysiologic relation of these two entities. In my opinion, this paragraph adds no information on APLS whatsoever and, therefore, should be left out.

2. Although the paper is overall well-written, there are several syntax and punctuation errors rendering the text somewhat difficult and tedious to read. The use of semicolon should be reconsidered throughout the text, e.g. p. 3: “However, not all patients with these antibodies will develop the antiphospholipid syndrome; as, antiphospholipid antibodies have been found in about 5% of the healthy population [5].” This phrase should be written “However, not all patients with these antibodies will develop the antiphospholipid syndrome, as antiphospholipid antibodies have been found in about 5% of the healthy population [5].”

3. Other examples include:

   a) p. 17: “Different mechanisms may be involved high aCL-IgG levels and restenosis after PCI [6].” This phrase should be re-written.

   b) p. 17-18: “Finally, the latest study of … between the level of IgG aCL and instent restenosis.” This phrase should also be re-written. I would suggest: “Finally, in a recent study, Sharma et al failed to demonstrate any significant correlation between the level of IgG anticardiolipin antibodies and in-stent restenosis in patients having undergone PCI with bare metal or drug eluting...”
stents. [46]"

c) p. 20: “While, monitoring anticoagulation…of coagulation proteins to phospholipid surfaces [21].”

d) p. 27: “cAPLS caused by a generalized thrombotic storm…” Please write cAPLS is caused by …” and start a new paragraph at this point. In general, the text should be formatted in paragraphs to assist the reader. Please, note for instance that the section titled “Intraoperative management of coagulation: a crucial problem” is actually presented as a single paragraph covering 8 pages.

4. p. 22: Anti-factor Xa levels: typing error “u ml±1”. Please type: IU/ml (or u/ml or u.ml-1).

**Level of interest:** An article of importance in its field

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

**Statistical review:** No, the manuscript does not need to be seen by a statistician.