Reviewer's report

**Title:** Myocardial Contractile Function after Cardiopulmonary Bypass in Survived Neonatal Piglets

**Version:** 1  **Date:** 6 September 2010

**Reviewer:** Yves Durandy

**Reviewer's report:**

This study about myocardial contractility after CPB with aortic cross clamping in neonatal piglet is an important and interesting subject.

**Major Revisions:**

The results are surprising and must be discussed. Decrease in myocardial contractile function is seen only in the control group, even if the differences between the 2 groups are not statistically significant this result is not intuitive.

The cardioplegic solution used is rather unusual in human pediatric surgery. Do you believe that its quality may explain the unexpected results?

The major limitation, as stated by the Authors, is the inclusion of survived piglets only. We need more details about the number of piglet who died and the precise reason explaining their death. Your conclusion is: the myocardial contractility of the neonatal heart may be unaltered by CPB with aortic cross clamping but it could be CPB may kill piglets.

Do you believe that with the description of the 4 cases you can reverse the classical opinion about negative effects of CPB on myocardial contractility? Furthermore, in neonates this effect is also influenced by the type of cardiopathy.

**Minor revision**

I think that it would be more conventionnal to indicate the restrictive volume load protocol following CPB in the method paragraph rather than in the discussion paragraph.

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

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**
I declare that I have no competing interests' below.