Reviewer's report

Title: Early and mid term mortality after coronary artery bypass grafting in women depends on the surgical protocol: retrospective analysis of 3441 on- and off-pump coronary artery bypass grafting procedures.

Version: 1 Date: 5 July 2010

Reviewer: Angel L Fernandez

Reviewer's report:

Major Compulsory Revisions

Abstract. Background.

In my opinion it should include a brief statement with the objective of the study. The methodology should not be displayed in the Background.

Abstract. Conclusions.

The authors asseverate that “OPCAB significantly reduces….mortality in women and may therefore be proposed as the preferred revascularization technique” however at the end of the Discussion the authors affirm that “our retrospective study is not enough to recommend using OPCAB in women undergoing CABG”. It should be clarified which one is the most important conclusion.

Patients and Methods.

It should be of great value to know if patients who were converted intraoperatively from OPCAB to CABG under ECC were entered into the database.

Results.

In my opinion patient preoperative characteristics summarized in table 1 should include more risk factors as for example the number of diseased vessels, the presence of left main disease, the Euroscore predicted risk of mortality, atrial fibrillation, past history of cerebrovascular accident, the serum creatinine concentration, the presence of previous myocardial infarction and the grade of angina. Statistical analysis should compare the four groups.

Intraoperative data should include information about the number of distal anastomoses, the patients converted from OPCAB to CAGB under ECC and outcome, the crossclamping and cardiopulmonary bypass time, percentage of arterial/saphenous grafts and other major adverse cardiovascular events as postoperative myocardial infarction and stroke.

Mortality comparisons should include not only raw mortality but also risk adjusted
mortality analysis.

Minor Essential Revisions

Introduction.

The first paragraph of the introduction should be shortened. In the second paragraph the authors asseverate “A reported exception is a previously published paper by Shroyer et al……more than 99% of the population was male” In my opinion this sentence should be placed in the Discussion section.

Discussion.

In the second paragraph the authors asseverate “female patients were generally sicker and older than male patients at the time of operation we also observed this trend in our study population” I am not sure that women were sicker than men. As a matter of fact ejection fraction was lower in men whereas hypertension and smoking were more frequent. More risk factors and statistical analysis should be included in table 1.

Level of interest: An article of outstanding merit and interest 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’