Reviewer's report

Title: Predictor of Poor Coronary Collaterals in Chronic Kidney Disease Population with Significant Coronary Artery Disease

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Reviewer: Roberta Poletti

Reviewer's report:

This manuscript usefully indicates the prognostic significance of predictors of poor coronary collaterals in chronic kidney disease (CKD) patients with significant coronary artery disease. Authors examined a fair large number of subjects (970, 202 with CKD) and concluded that high prevalence of CKD have no coronary collaterals, and that hypertension and diabetes (both alone and synergistic) are able to predict poor collaterals.

The work is interesting, original, well-written and the results hold clinical relevance, but there are some issues which have to be addressed by authors:

Major Compulsory Revisions:

1-Statistical section: authors should also show univariate analysis and list predictors of poor collaterals (even in a table) as well as explain the selection criteria for entering variables in multivariate analysis.

Therefore, in statistical section, they should mention which kind of test they performed to assess OR for combined risk. It would be interesting to know (and to discuss) why they selected the combination of diabetes mellitus and hypertension rather than the other combinations.

2-Furthermore, the aim of this paper appears to be more clinical than insight to pathophysiology. There are a number of mechanisms of signal transduction hypoxia-related, which have been demonstrated involved in collaterals development (e.g. hypoxia-inducible factor, HIF-1). It could be interesting if authors could highlight more this issue in the discussion, with regard to the particularly critical subset of CKD patients.

3-Authors stated that "gender, age, duration of chest pain, history of diabetes mellitus, hypertension, hypercholesterolemia, cigarette smoking, and medications" had been included in the analysis. A detail list of medications should be included in table 1, including ACE-i, ARBs as well as statins prevalence.

Furthermore, statins have been demonstrated increase collateral coronary development (Pourati, Am Heart Jorn, 2003): did authors perform statistical analysis including statins and, if so, which are their results?
Minor Revisiones:

1-Some punctuation slips:
Methods (study design, line 14): please add the point
Discussion, line 10: please add the closing parentheses
Discussion, line 50: please add the point

2-Result Section (line 5): "male and female", please correct.

3-Results Section: prevalence results as compared in the text are slight different from expressed in table 1 (43.5% in the text, 43.8 % in the table)

4-Discussion (line 3): prevalence of CKD patients with no collaterals results 42.4% while it results 42.6% in the Result section

5-Table 2: Please sort variables used for logistic analysis in the order as they appear in the text.

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

**Quality of written English:** Acceptable

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