

### Reviewer #1:

Specific Comments to Authors:

**Comment 1.** The authors present a detailed study regarding the coronary sinus anatomy during levophase of coronary angiography. The following issues need to be clarified: 1. Did the authors use any vasodilatory/hyperemic agents (e.g. nitrates or adenosine) during coronary angiography in order to improve the visualisation of the coronary sinus?

**Our Response-** We thank the reviewers for their kind comments and their appreciation is a validation of the hard work toiled. As detailed in the discussion section we did not utilize any vasodilatory /hyperemic agent and we have added it as a limitation too. However, in the discussion section we have described the results of the study by *Arbello et al* who utilized hyperemic venous return angiography with nitroglycerine/adenosine.

**Comment 2.** Information on additional radiation dose for the levophase (on top of standard angiography) would be important for the average reader. Data on additional radiation time and dose (e.g. air kerma) would be useful.

**Our Response-** We thank the reviewers for their kind comments. We wish to submit that we did not collect data on additional radiation time and dose. Hence, we have added it as a limitation of the study. However, since we obtained the CS anatomy in levophase in patients undergoing coronary angiography only in two views without any extreme angulation, there was not much of additional radiation exposure anticipated.

**Comment 3.** Did the authors compare the anatomic findings based on levophase with those of retrograde venography of the coronary sinus, at least in a part of their population? How do the results compare?

**Our Response-** We thank the reviewers for their kind comments. We wish to submit that we did not compare the anatomical findings based on levophase with that of retrograde venography. Hence, we have added it as a limitation. In the discussion section, we have described the results of the study by **Arbelo et al** who compared hyperemic venous return angiography vis-à-vis retrograde occlusive venography in Spanish population.

**Comment 4.** Minor comments The discussion and bibliography list could be enriched by the following citation: Arbelo E et al. Rev Esp Cardiol. 2008 Sep;61(9):936-44.

**Our Response-** We thank the reviewers for their kind comments. As per the suggestion, we have described the results of the study by **Arbelo et al** compared hyperemic venous return angiography vis-à-vis retrograde occlusive venography in Spanish population in the discussion section.

#### **Reviewer #2:**

**Comment 1.** The biggest limitation of this study may be the need to perform arterial puncture. Considering the complexity and complications of arterial puncture, there is room for consideration as to whether it is necessarily recommended.

**Our Response-** We thank the reviewers for their kind comments. We wish to affirm that patients were selected from general population who were undergoing angiography for various reasons and were not primarily selected for levophase angiography of Coronary Sinus per se. Only 7% patients in the study were suffering from Dilated cardiomyopathy. On the other hand , in multiple of cases of DCMP also an coronary arteriogram may also be mandated to rule out underlying significant CAD. Hence, based on our results this opportune moment may be aptly utilized to study the venous anatomy as well. Moreover, with advent of radial access (89% in our study) the complication rates have been drastically curtailed

**Comment 2.** There are cases in which veins could not be visualized with this method, but please indicate how different this is compared to regular CS angiography.

**Our Response-** We thank the reviewers for their kind comments. As rightly pointed out by the reviewers , in 13 cases (7.9 %) veins could not be visualized due to various reasons like spasm, severe CAD supplying the territory and true anatomical deficiency. Even with retrograde venography ,the absence of venous anastomosis led to extra injection and balloon placement close to CS ostia in 38.5% cases in study by *Arbello et al.* The MCV could be seen in 42% cases while the AIV in mere 75% cases. However, the venous opacification though poorer compared to retrograde opacification, is adequate for assessment of angulation and sizing.

**Comment 3.** Please describe the type of contrast agent used, the dose, and the method of administration.

**Our Response-** We thank the reviewers for their kind comments. We regret the error and we wish to affirm that we have enumerated the contrast agent, dose and method of administration in the revised manuscript.

**Comment 4.** In statistics, please indicate the software used and any significant differences.

**Our Response-** We thank the reviewers for their kind comments. We regret the error and we wish to affirm that we have updated the software utilized for statistics in the revised manuscript.