Number ID: 05346199 Publication Name: World Journal of Cardiology First Author: Iacopo Muraca MD Manuscript Type: Review

Title: CTO revascularization: a complex piece to "complete" the puzzle

Reviewer #1: Scientific Quality: Grade C (Good) Language Quality: Grade B (Minor language polishing) Conclusion: Minor revision Specific Comments to Authors: The authors reviewed the present status and effect of percutaneous coronary intervention (PCI) for chronic total occlusion (CTO). This review seems to be well-written. As a reviewer, I have some comments as bellow.

#1 There were some lack of putting adequate references. The authors should revise them appropriately and carefully. For example P3L10. The authors showed the real percentage of CTO-PCI among PCI procedures. At this point, any reference should be needed. P8L12, P9L6-7, P10L24, et al. There might be others.

Point Taken. As suggested by the reviewer adequate references were added.

#2 The authors had better show the scores for the evaluation of CTO in another table to make the readers understand them more comprehensively.

Point taken.

According to reviewer suggestion a resumptive table was added to the manuscript. Furthermore in the "Scores for the Evaluation of Chronic Coronary Occlusions" we add to the sentence: "We will review below the main scores reported in the literature" a reference to Table 2.

Reviewer #2: Scientific Quality: Grade D (Fair) Language Quality: Grade B (Minor language polishing) Conclusion: Major revision

**Specific Comments to Authors:** Although treatment of coronary chronic total occlusion (CTO) with percutaneous coronary intervention (PCI) has rapidly increased during the past decades, it is hard to say the clinical benefit of CTO in patients without clinical symptoms. As a technology, the application of contemporary strategies may obtain a state-of-the-art revascularization by PCI to achieve long-time clinical benefit in patients with angina pectoris.

Point Taken.

We agree with the reviewer. The manuscript doesn't report a clinical benefit in asymptomatic patients undergoing CTO PCI. In the section "Clinical Benefits of CTO Revascularization: Still an

Open Debate?" P3 we report the sentence: "......the indications to drive a CTO-PCI according to guidelines of the most important scientific societies are refractory angina symptoms despite optimal medical therapy or patients with documented large ischemic area in the territory of occluded vessel" in order to clarify that the sentence is not an author's opinion we added the reference of the last ESC guideline on myocardial revascularization. However according to reviewer suggestion, we added the sentence: "Meanwhile according to current evidence, CTO PCI should be considered in symptomatic patients despite optimal medical therapy." P6 L3-5