

Dear editor and reviewers,

We are thankful for your positive evaluation and for your comments that help to improve the quality of our submitted manuscript.

We address below the response letter.

1. What factors causes the migration of CD34+ cells from the bone marrow to the peripheral blood?

This paragraph and the related refence have been added page 5: “*Integrin antibodies, cysteine-rich angiogenic protein 61, stromal cell derived-factor 1 (SDF-1) and granulocyte colony stimulating factor were identified as agents incorporated in CD34+ cell mobilization from the bone marrow to peripheral circulation^[10-11]. Then, an interaction between several factors (SDF-1, hepatocyte growth factor, vascular cell adhesion molecule, stem cell factor) and homing receptors such as CXC-chemokine receptor-4 is responsible for CD34+ cells traveling to ischemic tissue^[12].*”

2. Page 5, paragraph 1, the author mentioned the production of exosomes. Please talk more about the role of exosomes in angiogenesis

The following sentence has been added page 5: “*These exosomes transfer proangiogenic miRNAs that may amplify the stem cell function and explain the angiogenic and therapeutic benefits associated with CD34+ stem cell therapy^[15].*”

3. As ischemia pre/post-conditioning is beneficial for myocardial ischemia, will CD34+ cells also play a role in the processes? Please discuss this briefly.

The following sentences and the related refence have been added page 6: “*It is known that ischemic pre-conditioning (IPC) is beneficial for myocardial ischemia. Subsequently, Kamota et al^[35] have demonstrated that this positive outcome was linked to the released*

cardioprotective factors in the early phase of IPC and to the CD34⁺ cells mobilization in the late phase of IPC.”