

## RESPONSE TO REVIEWER'S COMMENTS

Reviewer #1:

**Scientific Quality:** Grade B (Very good)

**Language Quality:** Grade A (Priority publishing)

**Conclusion:** Minor revision

**Specific Comments to Authors:** This is a good review on exercise in heart transplantation. The authors reviewed appropriate approaches for exercise training before and post transplantation. Furthermore, the authors noted that long-term follow-up data is incomplete and, therefore, further high quality and adequately-powered studies are needed. Although this is an informatic review, some parts could be improved.

1. Author should compare the effect of exercise on endothelium and myocyte respectively.

**Answer:** We would like to thank the reviewer for his/her useful comments. After the reviewer's suggestion, we added the effect of exercise on endothelium and myocytes in the main text. Additions are in red colour.

2. It would be important to discuss typical cardiovascular and musculoskeletal alterations.

**Answer:** According to the reviewer's comment, we further discussed and modified typical cardiovascular and musculoskeletal alterations in patients with heart failure and after heart transplantation in the main text. Additions are in red colour. Typical cardiovascular and musculoskeletal alterations are also presented in figure 1.

3. Page 7, references should be cited after "Endothelial dysfunction is a major cause of disability and lower life expectancy in heart transplant recipients (Figure 1)."

Answer: The appropriate references were cited with red colour after the sentence “Endothelial dysfunction is a major cause of disability and lower life expectancy in heart transplant recipients (Figure 1)” in page 7.

**Lund LH**, Edwards LB, Dipchand AI, Goldfarb S, Kucheryavaya AY, Levvey BJ, Meiser B, Rossano JW, Yusef RD, Stehlik J; International Society for Heart and Lung Transplantation. The Registry of the International Society for Heart and Lung Transplantation: Thirty-third Adult Heart Transplantation Report-2016; Focus Theme: Primary Diagnostic Indications for Transplant. *J Heart Lung Transplant* 2016; 35: 1158-1169 [PMID: 27772668 DOI: 10.1016/j.healun.2016.08.017]

**Rossano JW**, Cherikh WS, Chambers DC, Goldfarb S, Khush K, Kucheryavaya AY, Levvey BJ, Lund LH, Meiser B, Yusef RD, Stehlik J; International Society for Heart and Lung Transplantation. The Registry of the International Society for Heart and Lung Transplantation: Twentieth Pediatric Heart Transplantation Report-2017: focus theme: allograft ischemic time. *J Heart Lung Transplant* 2017; 36: 1060-1069 [PMID: 28779892 DOI: 10.1016/j.healun.2017.07.018]

**Tucker WJ**, Beaudry RI, Samuel TJ, Nelson MD, Halle M, Baggish AL, Haykowsky MJ. Performance Limitations in Heart Transplant Recipients. *Exerc Sport Sci Rev* 2018; 46: 144-151 [PMID: 29912037 DOI: 10.1249/JES.000000000000149]