

Reviewer 1

This manuscript provides a nice review of preclinical studies on the mechanisms by which MSC-derived exosomes can protect against severe ARDS and cardiovascular complications observed in severe COVID-19 patients, and discusses the potential of these exosomes as an effective (and urgently needed) therapy for critically ill COVID-19 patients. I enjoyed reviewing it.

Below are some minor suggestions to the authors to improve this review article.

Specific comments:

1. I would add a more detailed section (under section 4, line 219) on the a) pathogenesis of ARDS since it is the main cause of death in patients with severe COVID-19, and b) ARDS current treatments and other potential treatments.

Under section 4.1. “MSCs-derived exosomes and respiratory lung injuries”, a more detailed description of ARDS pathogenesis, current treatments and other potential treatments has been added.

- 2 Line 228: “results” should be “leads”.

The sentence has been modified.

- 3 Line 239: Something is missing from the sentence that starts with “We must precise...”.

The first part of the sentence has been changed.