# Article information:

Intratracheal administration of umbilical cord-derived mesenchymal stem cells attenuates hyperoxia-induced multi-organ injury via heme oxygenase-1 and JAK/STAT pathways - PubMed  
<https://pubmed.ncbi.nlm.nih.gov/36157523/>

# Article summary:

1. Intratracheal administration of umbilical cord-derived mesenchymal stem cells (hUC-MSCs) can attenuate hyperoxia-induced multi-organ injury.

2. hUC-MSCs administration improved pulmonary alveolarization and angiogenesis, right ventricular hypertrophy, and nephrogenic zone width and glomerular diameter in kidneys.

3. hUC-MSCs increased heme oxygenase-1 (HO-1), JAK2, and STAT3 expression, and their phosphorylation in the lung, heart, and kidney.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

This article is generally trustworthy as it provides a detailed description of the research conducted to investigate the protective effects of human umbilical cord-derived mesenchymal stem cells (hUC-MSCs) on hyperoxia-induced multi-organ injury. The authors provide a clear explanation of their methods, results, and conclusions which are supported by evidence from experiments conducted on neonatal rats exposed to hyperoxia.

The article does not appear to be biased or one sided as it presents both sides of the argument equally. It also does not contain any promotional content or partiality towards any particular viewpoint or opinion. Furthermore, the authors have noted possible risks associated with their study such as potential side effects from administering hUC-MSCs intratracheally or intraperitoneally to neonatal rats.

The only potential issue with this article is that it does not explore any counterarguments or alternative explanations for its findings which could weaken its reliability slightly. However, overall this article appears to be reliable and trustworthy due to its detailed description of the research conducted and its lack of bias or promotional content.

# Topics for further research:

* Hyperoxia-induced multi-organ injury
* Human umbilical cord-derived mesenchymal stem cells
* Intratracheal administration of hUC-MSCs
* Intraperitoneal administration of hUC-MSCs
* Neonatal rat models of hyperoxia
* Potential side effects of hUC-MSCs

# Report location:

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