OPEN PEER REVIEW REPORT 1

Name of journal: Neural Regeneration Research
Manuscript NO: NRR-D-22-00079
Title: Erythropoietin mitigates ferroptosis following spinal cord injury and ameliorates neurological function recovery via activating xCT/Gpx4 pathway
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COMMENTS TO AUTHORS

1. Traumatic spinal cord injury (SCI) is a serious traumatic disease of the central nervous system with high mortality and high disability rate. The imbalance of the microenvironment after SCI, resulting in a large number of nerve cells dying in the acute phase, is an important reason for the difficulty in repairing SCI. Intervention of cell death pathways is therefore one of the main strategies for repair. This article confirmed the potential application of erythropoietin in the treatment of spinal cord injury through animal and cell experiments, and studied its possible pathways, which has certain clinical application value.
2. How were the doses of EPO in the high-dose and low-dose groups obtained? What is its corresponding basis?
3. What is the reason that E, F, G in Fig.6 do not have separate EPO group?
What is the reason that A-F in Fig.7 does not have a separate EPO group?
4. P12 cells are a cell line derived from rat adrenal medullary pheochromocytoma.Using the P12 cell line to reflect the mechanistic changes after spinal cord nerve injury is questionable whether it can reflect the corresponding changes in animals or humans. If possible, it is recommended to change to primary cultured cells such as DRG cells or Schwann cells .If PC12 cells must or can only be used for this study, adequate previous research support should be g iven.At the same time, it is necessary to be more conservative with the conclusions drawn.