

Inter-Alpha Inhibitor Proteins Modify the Microvasculature after Exposure to Hypoxia–Ischemia and Hypoxia in Neonatal Rats

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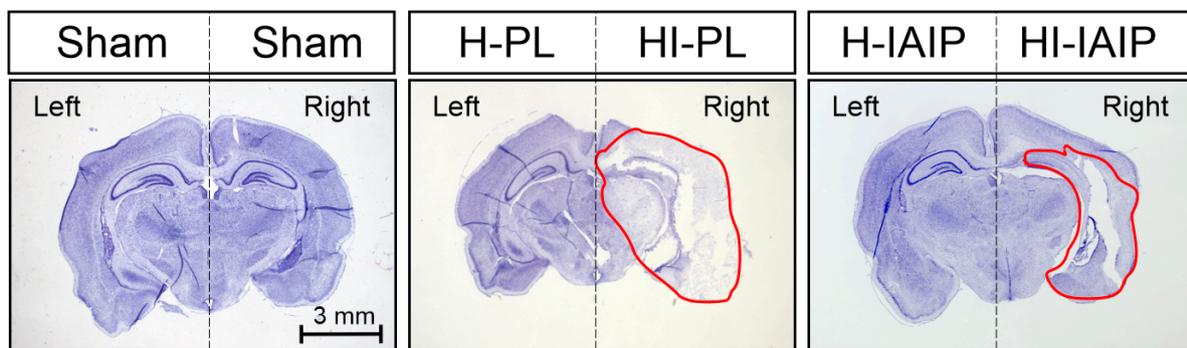
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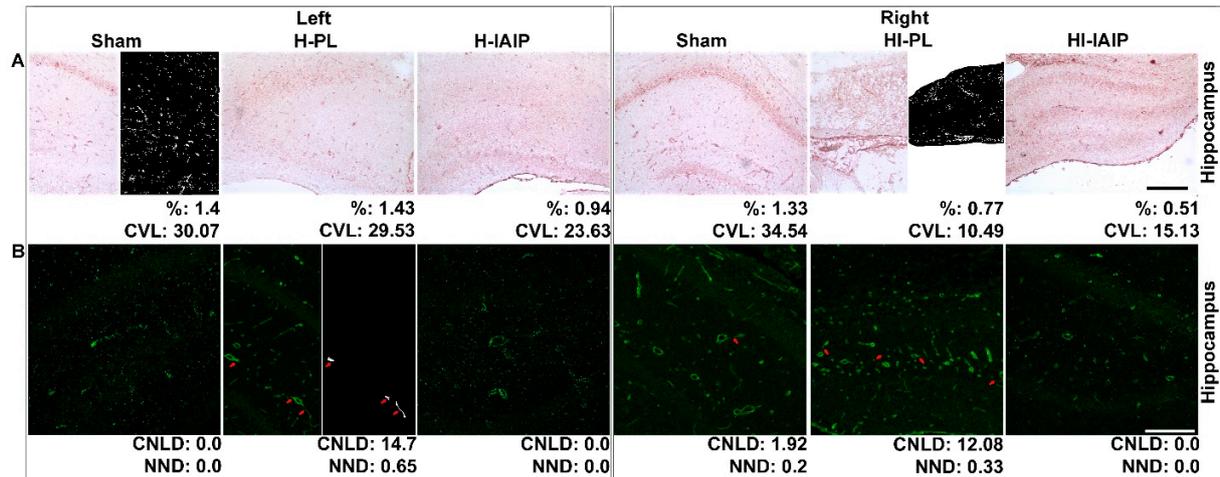
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Supplementary Figure S1:

Representative cresyl violet images of the coronal brain sections from the Sham, H/Hi-PL, and H/Hi-IAIP stained with cresyl violet 3 days after HI brain injury. Infarct areas were contoured with the red line. Scale bar = 3 mm. This Nissl-stained image is distinct from previous published Nissl images [1], which were obtained from neonatal rats using the same hypoxic-ischemic and hIAIP treatment procedures as in the current study.



Supplementary Figure S2:

Representative images used in the quantitative analyses comparing sham-operated, hypoxia (H, left side of brain) and hypoxia-ischemia (HI, right side of brain) in a male neonatal rat brain vasculature.

A) Representative laminin immunohistochemical labeling and thresholded binary images of coronal hippocampal sections (acquired with a 10x lens light microscope) used to automatically measure the percent (%) of the laminin-stained area and the cumulative laminin⁺ vessel length (CVL: expressed as multiples of 100 μm of vessel length)/area (1 mm^2). Scale bar: 250 μm ; field total area 975,440 μm^2 .

B) Representative immunofluorescence confocal laminin immunolabeling and thresholded binary images of coronal hippocampal sections (acquired with a 40x lens confocal microscope) used to localize (red arrows) and automatically measure the cumulative laminin⁺ nanotube linear density (CNLD: expressed in $\mu\text{m}/\text{acquired volume}$ expressed as $10^6 \mu\text{m}^3$) and the nanotube numerical density (NND: number of identified nanotubes/acquired volume). Scale bar: 100 μm ; field total volume 1.201 $10^6 \mu\text{m}^3$.

References:

1. Chen, X.; Nakada, S.; Donahue, J. E.; Chen, R. H.; Tucker, R.; Qiu, J.; Lim, Y. P.; Stopa, E. G.; Stonestreet, B. S., Neuroprotective effects of inter-alpha inhibitor proteins after hypoxic-ischemic brain injury in neonatal rats. *Exp Neurol* **2019**, 317, 244-259.