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Protocol for "non-human primate necropsy"

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DISCLAIMER

Nothing to declare

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ABSTRACT

Here we describe the standard procedure conducted for performing a non-human primate necropsy, followed by removal of the brain and spinal cord from the skull and backbone, respectively.

IMAGE ATTRIBUTION

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Protocol status: Working
We use this protocol and it's working

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Animal preparation

- 1 Pre-surgical anesthesia: to be induced with ketamine (5 mg/Kg) and midazolam (0.5 mg/Kg), administered intramuscularly
- 2 Terminal anesthesia: to be induced with an overdose of sodium pentobarbital (200 mg/Kg).

Prefusion and pre-histological processing

- 3 Perform a T-shape incision with a scalpel through the thorax and abdomen.
- 4 Open and retract the chest cavity to visualize lungs and heart.
- 5 Open the left ventricle to allocate the infusion cannula at the level of the aortic infundibulum and fixed it.

- 6 Open the right atrium, getting started with the perfusion protocol at a constant rate of 3,500 ml/h) with an infusion pump.
- 7 First solution: 1,000 ml of saline Ringer solution.
- 8 Second solution: 3,000 ml of a buffered solution made of 4% paraformaldehyde and 0.1% glutaraldehyde in 0.125 M PB pH 7.4
- 9 Third solution: 1,000 ml of a buffered solution made of 1% dimethylsulphoxide (DMSO) and 10% glycerin in 0.125 M PB pH 7.4
- 10 Brain extraction: Once perfusion was completed, the brain and the spinal cord are removed from the skull and the backbone, respectively. 10 mm-thick brain blocks are made and the pia matter carefully removed under a dissection microscope. Brain blocks were stored for 48 h in a cryoprotectant solution containing 2% DMSO and 20% glycerin in 0.125 M PB 7.4