ABSTRACT

Summary:

Chronic indwelling catheter is placed in the carotid artery for blood sampling during experiments. Survival surgery is performed in anesthetized mice, and mice recover from surgery after 4~5 days.

MATERIALS

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Hospira, RRID:SCR_003985
Anesthetize mice with an intraperitoneal injection of ketamine (100 mg/kg body weight) and xylazine (10 mg/kg body weight).

Check the level of general anesthesia using a pinch stimulus of animal's tail and/or foot.

Make a transverse incision (~0.5 cm) over the trachea, and isolate the carotid artery.

Carefully introduce a silastic catheter (PE 10) into the vessel. The catheter should be filled with a saline solution containing heparin (10 U/ml) and plugged.

Guide the catheter to the back of the neck, and place under the back skin to prevent its accessibility from the mouse.

Tie a silk to the catheter, and make a small opening at the back of neck.

This silk, which is partially exposed, will be used/pulled on the day of experiment to expose the catheter.
8 On the day of experiment, flush the catheter using a heparinised saline solution.

9 All surgical procedures should be performed using standardized aseptic techniques, and all surgical tools should be autoclaved following the surgery.

10 Apply post-operative care based on the institution’s animal care and use committee standard operating policy.