VENA CAVA CATHETERIZATION

ORDER CODE: VENACAVA
SPECIES: Rat
DIET SUPPLEMENT: None required

Vascular catheters are surgically placed in the animal to facilitate the repeated or routine sampling of fluids, or to allow for repeated or routine injections of solutions. The pharmacological distribution and metabolism of the material being evaluated, in conjunction with the anticipated response in the animal model being used, determines which vessel to catheterize.

Surgical Procedure

The animal is prepared for surgery using preoperative and anesthetic procedures as described in our *Surgical Capabilities Reference Paper,* Vol. 13, No.1, 2005. A small incision is made at the scapular region. The viscera is retracted laterally to expose the abdominal vena cava. For those catheters intended to direct cranially, a small portion of the vena cava right before the iliac bifurcation is freed from the aorta. For those catheters intended to direct caudally, a small portion of the vena cava between the left renal vein and iliac bifurcation is isolated from the aorta. The isolated portion of the vena cava is then temporarily occluded cranially and caudally. The vena cava is punctured and a saline-filled catheter is inserted and advanced either cranially or caudally. A stay suture is used to secure the catheter in place. The viscera is replaced, and a trocar is used to puncture the abdominal cavity and the catheter is passed through it. The trocar is removed and the abdominal incision is closed with suture material and wound clips. Patency is tested. The catheter is tunneled subcutaneously to the scapular region and exteriorized. Once exteriorized, the catheter is locked with solution, and the exteriorized portion of the catheter is tucked subcutaneously and secured to the skin with a wound clip.

IACUC

Charles River's Institutional Animal Care and Use Committee (IACUC) governs the entire surgical process, including any postoperative holding in Charles River facilities prior to shipment. The receiving institution's Animal Care and Use Committee, investigators, and animal care staff are responsible for the well-being of the animal subsequent to its arrival. Justification for use of surgically-modified animals, review of experimental protocols, authorization to order animals that are surgically modified from Charles River, and all aspects concerning the use of surgically-modified animals after they arrive at the institution are the responsibility of the receiving institution's IACUC.

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