

PORTAL VEIN CATHETERIZATION

ORDER CODE: PORTVEIN

SPECIES: Rat, Mouse

DIET SUPPLEMENT: None required

Vascular catheters are surgically placed in various species to facilitate the repeated or routine sampling of fluids, or to allow for repeated or routine injections of materials. 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 pre-operative and anesthetic procedures as described in our *Surgical Capabilities Reference Paper*, Vol. 13, No.1, 2005. An abdominal midline incision is made extending above the xyphoid cartilage. The animal is draped, the cecum is pulled out and the mesenteric vein is identified. A 5mm section of the vessel is isolated. A loose ligature is placed proximally and the distal end of the vein is ligated. A small incision is made between the ligatures into which the catheter is inserted. The catheter is secured in place by tying the loose ligature around the catheterized vessel. The cecum is replaced into the abdominal cavity. A hole is made in the right abdominal wall through which the free end of the catheter is passed. The catheter is secured by suture to the abdominal wall. The abdominal muscle incision is closed with suture. A small incision is made in the scapular region to serve as the exit site of the catheter. The catheter is subcutaneously tunneled and exteriorized through the scapular incision. A stay suture is placed in the scapular area. Patency is tested, and the catheter is filled with a locking solution and sealed with a plug. A subcutaneous skin pocket is made cranially. The excess length of catheter is tucked into the skin pocket. The skin incisions are closed with wound clips.

IACUC

Charles River's Institutional Animal Care and Use Committee (IACUC) governs the entire surgical process, including any post-operative holding in CRL 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.

April 2000