

BILE DUCT CATHETERIZATION

ORDER CODE: BILECANN

SPECIES: Rat, Mouse

DIET SUPPLEMENT: None required

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. A small abdominal midline incision is made through the skin and muscle, extending above the xyphoid cartilage. A drape is placed over the incision site. Two small incisions are made in the scapula region. The biliary end of the catheter is passed subcutaneously from the abdominal incision through the right incision in the neck and exteriorized. The catheter is then inserted through the left incision in the neck and subcutaneously moved down to the abdominal incision site. The abdominal muscle is punctured on both sides to allow for the biliary end of the catheter to be passed through to the left abdominal wall; and likewise, the intestinal end is passed through to the right abdominal wall. The major lobes of the liver are retracted out of the way against the diaphragm. A small portion of the duct below the bifurcation and above the pancreas is exposed. Two pieces of suture are pulled through and under the vessel. The distal ligature is tied off, and a loose knot is tied in the proximal end. A small incision is made in the bile duct near the distal ligature. The biliary end of the catheter is inserted into the bile duct up to a pre-determined point. The loose ligature is then tied to secure the catheter in the duct. A purse-string suture is placed on the duodenum in an area where the bile duct enters. A small incision is made in the center of the purse-string suture. The intestinal tip is inserted into the duodenum and the purse-string suture is tied off. The catheter is secured to the abdominal wall with suture. Observe for leakage or obstruction of the catheter before closing the abdominal muscle with suture. The skin incision is closed with wound clips. The catheter is further secured at the scapula exit sites with suture. The exteriorized portion of the catheter is cut at the center. The bile flow is checked. The bile will flow from the animal's left to the right. The catheter is reconnected with a hollow tube connector. The skin incisions in the scapula area are closed with Vetbound.

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.