Rabbit Vascular Access: Jugular Vein via Ear Vein Catheter

Materials:
Catheter: RBEV-04, RBEV-06 and other iterations thereof
Sealing options between access time points: CP-22 (stainless steel plug), injection plug/blunt, Heat Seal
Flush Solution: Saline, or saline with heparin
Locking Solution: HGS-10

Procedure:

The following is the suggested procedure for chronic implantation of the RBEV ear vein catheter in the marginal ear vein of a standard laboratory rabbit. If properly placed and maintained, this catheter has been shown to be an effective method of accessing the jugular vein (via the marginal ear vein) for both infusion and sampling procedures. It is recommended for use up to 14 days. These catheters have been maintained for periods longer than two weeks by following stringent flushing and locking guidelines.

Methods:

Pre-fill the catheter with heparinized saline. Insert the catheter through the introducer needle (included) and access the marginal ear vein. Split and peel off the needle before feeding the catheter into the vein till the Teflon portion of the catheter is seated inside the access site. Secure the suture anchor to the ear by suturing all the way through the ear with braided absorbable sutures 3 to 4 times. Remove the insertion stylet and lock the catheter with HGS-10 and seal the open end of the PE tubing between uses.

Figure 1: Rabbit Ear Vein Catheter diagram:

Figure 2: Ear Vein Catheter Implanted: