Cath-In-Cath 2 Implantation Guide

Jugular Implantation of the Cath-In-Cath 2 Port System in the Primate

After proper preparation and draping, a midline incision is made over the trachea (Fig. 1), and the jugular is exposed via blunt dissection. The vessel is freed via blunt dissection, and two 4-0 Excel® ligatures are used to retract the vessel (Figs. 2-4).

The cranial aspect of the vessel is ligated, and a veinotomy is performed (Fig. 5). A primed AVA 4-6 fr polyurethane catheter, with beads at 10 and 11 cm and a Dacron® felt catheter curve attached, is inserted approximately 10 cm, until the proximal bead is within the lumen of the vessel (Figs. 6-9).

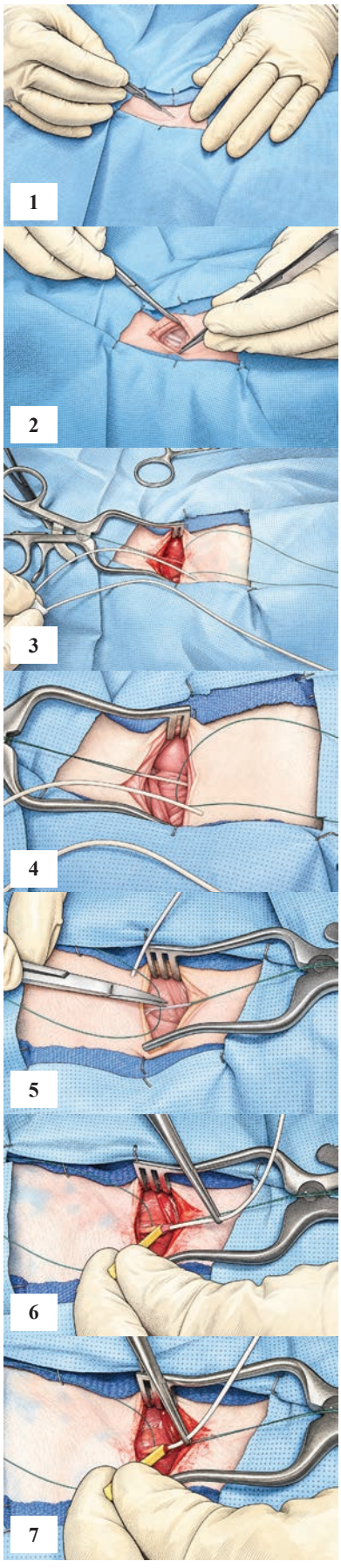
The proximal aspect of the vessel is ligated behind the inserted bead, and the catheter is anchored in place with the ligature used to ligate the cranial aspect of the vessel. Additional ligatures may be placed to further anchor the catheter at the surgeon's discretion (Figs. 10-12). Once the catheter has been anchored, it is flushed with sterile saline, and patency is confirmed (Fig. 13). After patency has been confirmed, a horizontal incision is made on the mid-lateral thorax, and the edge of the latissimus dorsi is freed from the underlying musculature by blunt dissection (Figs. 14-16).

This allows the port to lie under a muscle group, limiting the chance of pressure necrosis and tissue erosion from the port body. Care should be taken not to disrupt the latissimus dorsi muscle from the fascia located between the muscle and the skin.
A trocar is then passed from the jugular incision to the thoracic incision and exits between the latissimus dorsi and the underlying muscle groups. This allows the catheter and port to align without sharp turns that could inhibit passage of the Cath-In-Cath System (Figs. 17-18).

The catheter is then passed to the thoracic incision site, and the trocar is removed. Slide the protective sleeve down the catheter until it is located just distal to where the catheter will be trimmed. Trim the catheter approximately 3 mm from the proximal edge of the sleeve, and attach a primed AVA side-access port (Figs. 20-22). Slide the protective sleeve over the catheter and port pin, and flush accordingly (Fig. 23). The catheter can be anchored to the pin at this time if the surgeon deems it necessary.

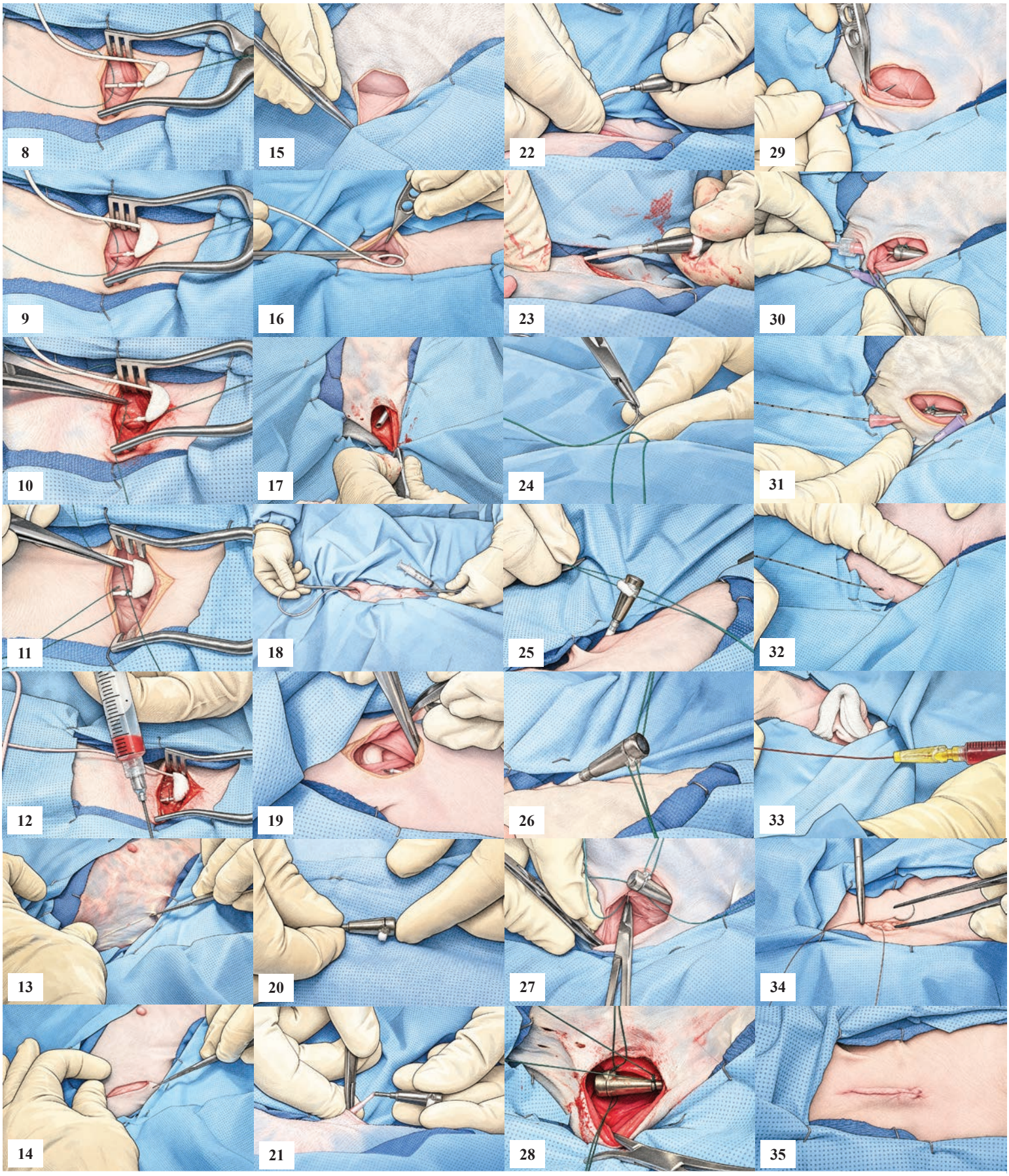
At this time, port volumes can be assessed if needed. Place the Dacron® felt catheter curve into a pocket formed alongside the jugular, and proceed to anchor the port with 2-0 Excel suture: one on each side of the port and one around the pin (Figs. 24-28). During anchoring of the port, ensure that the catheter is lying straight and, if attached, the Dacron felt pad is lying against the animal's chest (Fig. 19).

See Figs. 29-33 for the illustrated access sequence. Lock the catheter with an appropriate locking solution. Appose all muscle layers and skin with an appropriate absorbable suture (e.g., 3-0 Vicryl for the muscle layers and 4-0 Vicryl for skin closure; Figs. 34-35). Skin staples and/or tissue adhesive may also be used.



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