Central Venous catheter placement and maintenance

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Claire has been in veterinary nursing for over 20 years. In 2006, she gained the Diploma in Advanced Veterinary Nursing (Surgical) and in 2013, she gained the VN certificate in Emergency and Critical care. Claire successfully passed the postgraduate certificate in veterinary anaesthesia and analgesia. She works part-time as a theatre nurse for Oakwood Veterinary Referrals alongside running SynergyCPD.

Jugular catheters are becoming more widely used in small animal medicine and veterinary nurses play an important role in the preparation of equipment, patient preparation, placement and catheter care. For some patients, having access to the central circulation can be far more suitable than peripheral access and indications for their use include:

- Delivery of Intravenous fluids and medications
- Delivery of parenteral nutrition (TPN/PPN)
- Frequent blood sampling
- Central venous pressure monitoring (CVP)
- Volume resuscitation
- Cardiac arrest
- Lack of peripheral access
- Long term IV access
- Need for multiple fluid lines

Jugular catheters are placed for long term access. Their location makes them more comfortable and less vulnerable to interference in comparison to peripheral catheters. They are easier to maintain than femoral or saphenous catheters and are less likely to become contaminated with urine and faeces. There is the greatest risk of contamination during placement and therefore central catheters have the added advantage of being able to stay in situ for longer than their peripheral counterparts.

One of the main roles of the veterinary nurse is to ensure that asepsis is maintained during the daily management of the jugular catheter to avoid the risk of contamination. Patients need to be closely monitored whilst the catheter is in place and be quick to flag up any concerns with the clinician.

Learning Points:

- Develop a good understanding of the indication for central catheter placement and the contraindications to placement
- Be able to select an appropriate catheter and understand the correct techniques for patient preparation and catheter placement
- Be able to implement correct nursing care for patients with a central catheter in place