In cattle, the most common sites for epidural administration of anaesthetic agents are the first coccygeal intervertebral space (Co1-Co2) and the sacrococcygeal intervertebral space (S5-Co1). The animal remains in a standing position during the procedure.

“The site of injection can be identified by moving the tail up and down in a pump-like manner. The first proximal moving space that can be easily palpated is the preferred location for injection. The site in the dorsal midline is clipped and aseptically prepared using a disinfectant solution. An 18-Gauge, 1.25″ needle is used to penetrate the intervertebral space. The needle is usually directed slightly in a cranial direction and advanced slowly. A lack of resistance or popping sensation usually indicates that the epidural space is entered. Correct placement of the needle can be checked by the hanging drop technique which can be performed by placing few drops of sterile water or lidocaine into the needle hub during insertion. When the needle enters the correct space, the drop of saline or lidocaine is observed to be aspirated under the effect of the negative pressure in the epidural space. Furthermore, before injection of the drug, negative pressure is applied by the syringe to ensure blood or spinal fluid is not aspirated. In which case, the needle must be withdrawn and adjusted slightly and negative pressure is applied again.”

“According to the volume of injected drug, epidural anaesthesia can be classified into caudal (low dose or low volume) epidural or cranial (high dose or high volume) epidural. Low dose or caudal epidural anaesthesia is the most commonly used technique and it requires the injection of a small volume of the drug. This technique desensitizes the caudal sacral nerves within the spinal canal. The motor functions of the hind limbs are not affected . Areas that are desensitized by low volume epidural are the tail, vagina, vulva, anus, rectum, caudal prepuce, scrotum, and urethra.”

**References**

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