



Animal Birth Control

{ Ovariohysterectomy }

Prepared by-

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Ovariohysterectomy

“Ovariohysterectomy is a surgical procedure consisting of laparotomy with ablation of both ovaries and the uterus”

- Elective method for preventing unwanted oestrus and pregnancy in pet animals
- Best performed during anoestus (generally 3-5 months after the end of the previous estrus)



Indication of Ovariohysterectomy

- **Birth control Programme**

- Other indications-----

- Neoplasm involving ovary and uterus
- Ovarian cyst
- **Uterine diseases** (Pyometra, metritis, chronic endometrial hyperplasia, prolapse)
- Minimize the risk of mammary gland tumors
- Vaginal edema
- To restrict the genetic diseases, if any, etc.

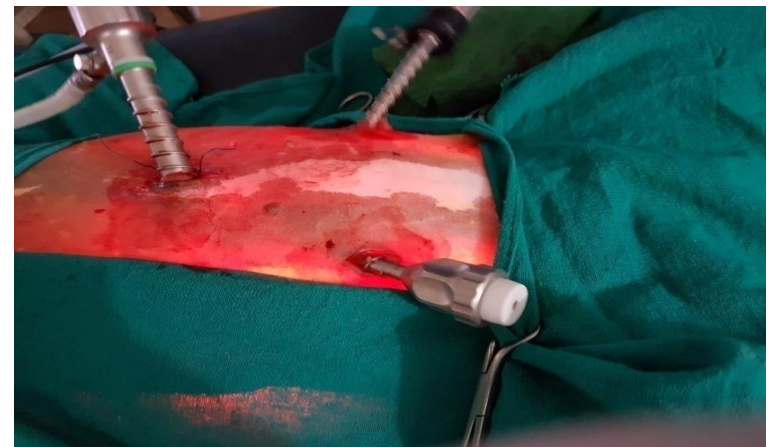
➤ Midline

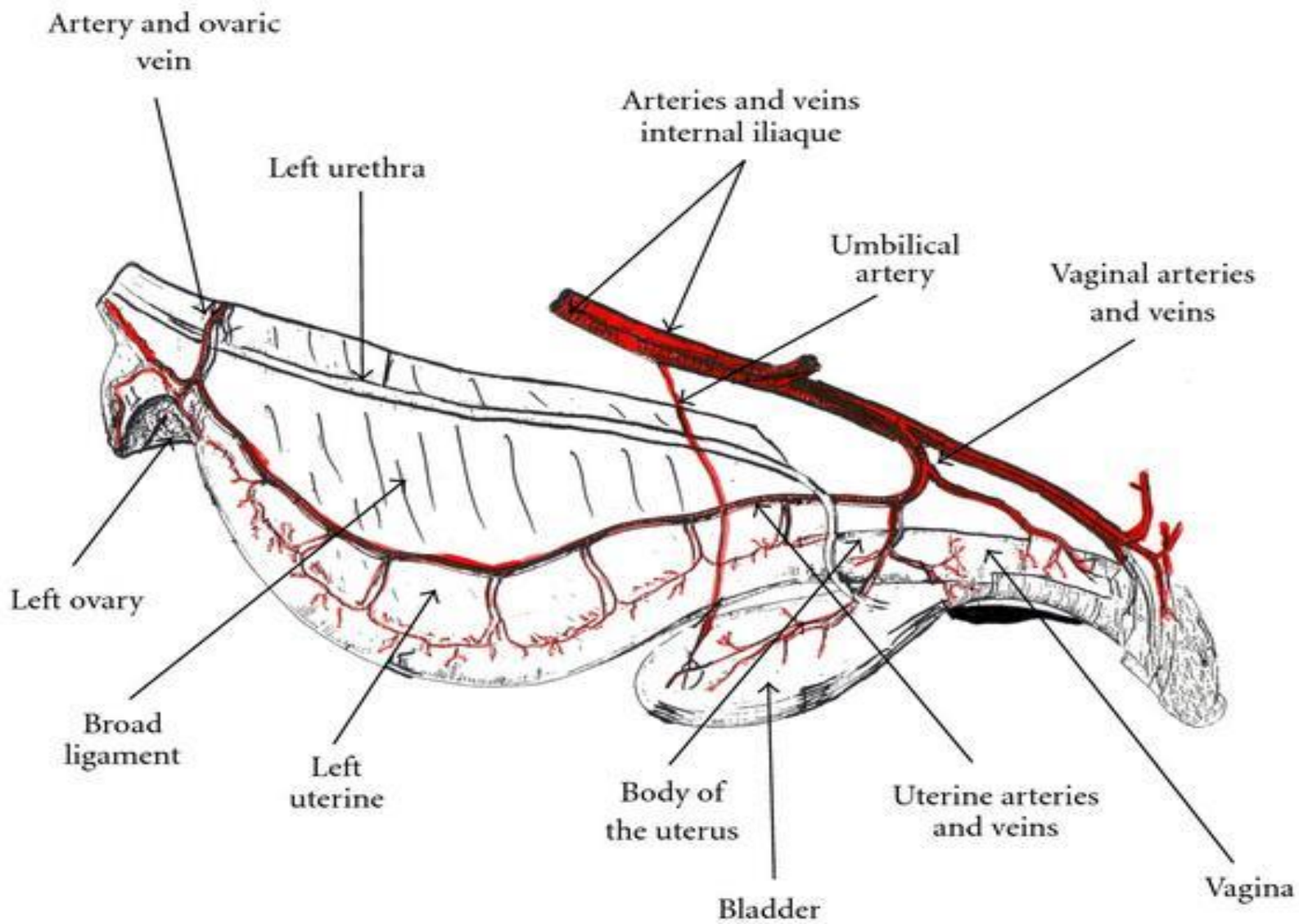
- Incision is usually located beginning just caudal to the umbilicus and extended caudally.
- Adequate to allow you to safely and effectively remove the ovaries

➤ Flank

➤ Laparoscopic Surgery

- Laparoscope guided







Pre-requisite of Cesarean Section

Preparation of the Equipment-

*In addition to the **standard surgical pack**, the surgeon requires the following instruments-*

- 2 Babcock forceps
- 4 Artery forceps
- 4 Doyen bowel clamps

Pre-anesthesia/Premedication

– Sedation, Muscle relaxation, Analgesia, antibiotics etc.

➤ Drugs commonly used

- Atropine (**0.04mg/kg**)
- Xylazine (**1 mg/kg**)
- Ketamine (**5mg/kg IV**)
- Diazepam (**0.1-0.5 mg /kg**)



Fig: Babcock forceps

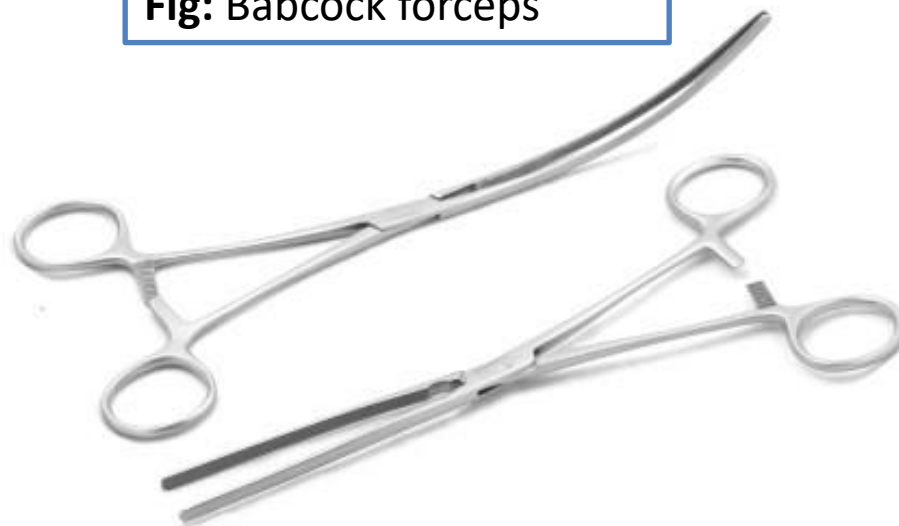


Fig: Doyen bowel clamps



Preparation of the Animal-



- Complete physical examination
- Complete blood count, serum chemistry, and urinalysis
- Fasting (no food or water) the night before surgery and the day of surgery
- A pre-anesthetic, pain medication, and antibiotic are administered
- stabilization of surgical table (Dorsal or lateral recumbancy)
- Hair clipping (from the xyphoid to the pubis)
- Scrubbing for surgery
- Place a drape on top of the dog, creating a sterile field
- clamped the drape



Surgical Procedure



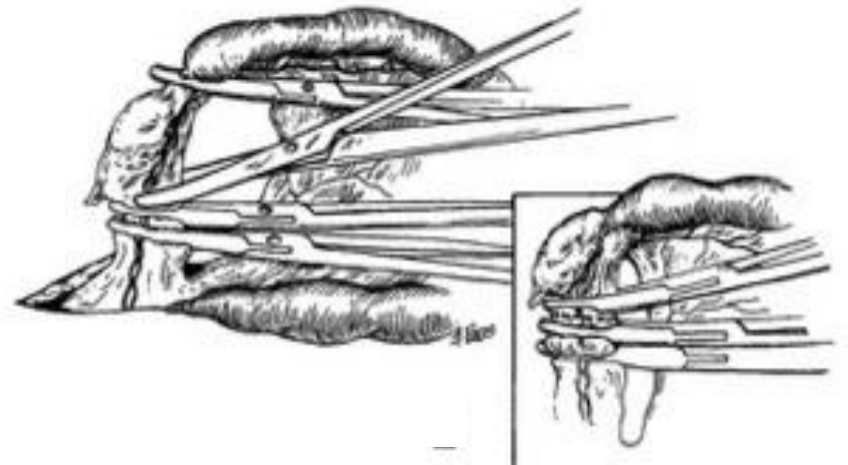
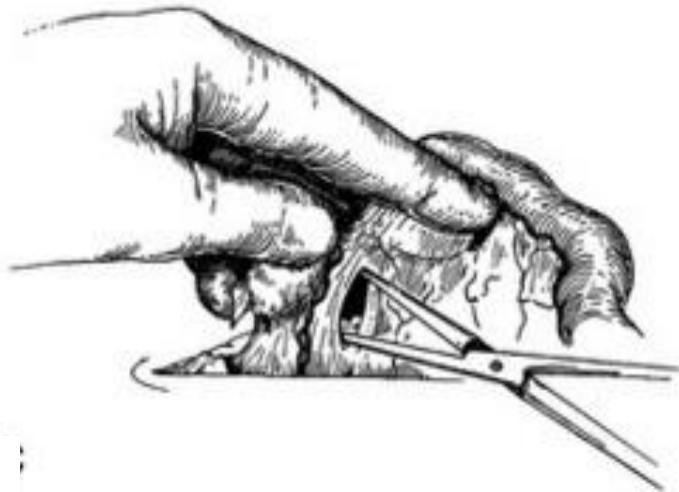
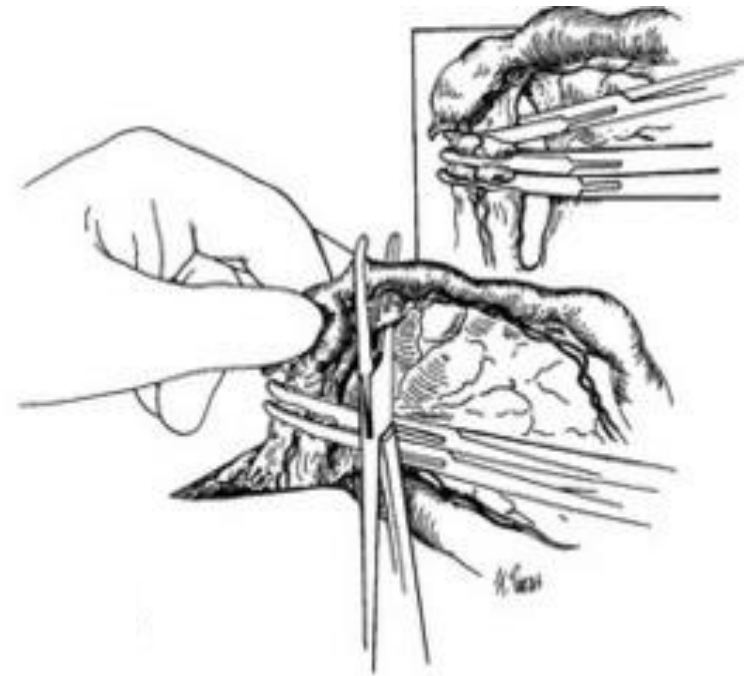
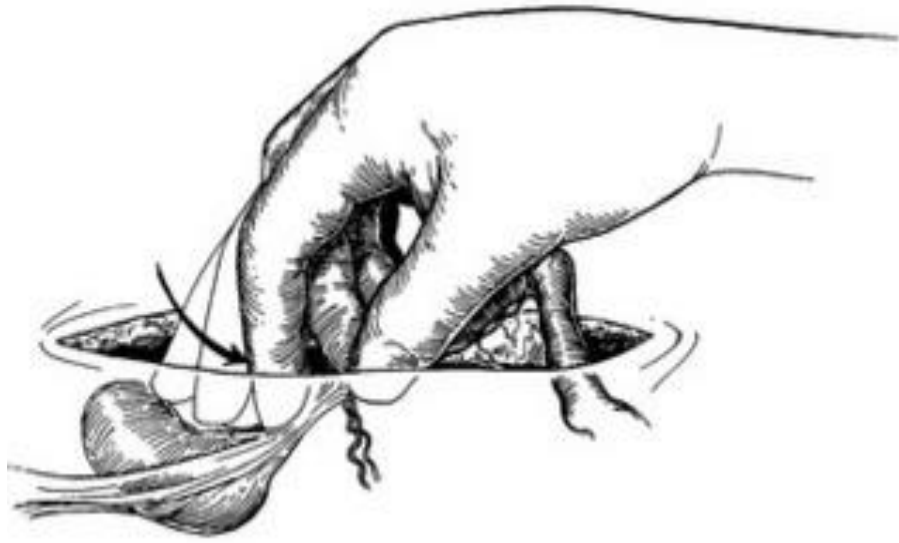
- A clean **continuous incision over the midline on the skin** linea alba (5 cm approx) just caudal to the umbilicus incision
- Incision on subcutaneous tissues, fat and then peritoneum
- Locate the uterus using a hook
- Pulled the uterine horn gently by using forceps
- Ligate the major blood vessels supplying the ovaries and the uterus
- Dissected the uterus and tied off with 0 or 2-0 monofilament absorbent sutures

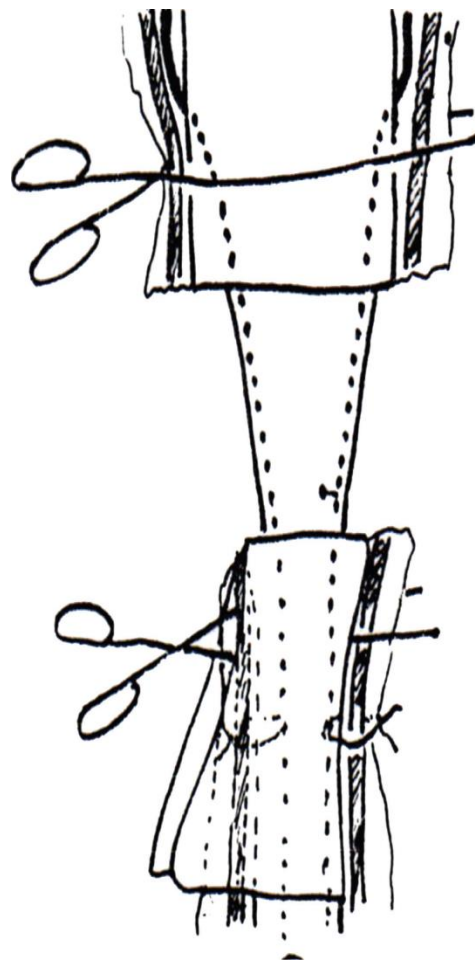
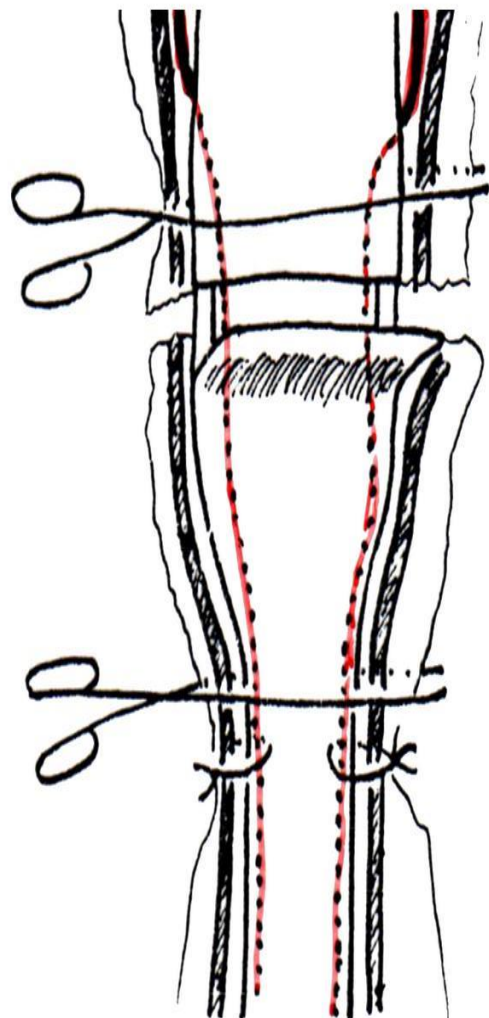


- Grasped the ovary
- Ligature of ovaries should be as close as possible to the root of the pedicle to ensure haemostasis of the ovarian artery
- A clamp is then placed between this ligature and the ovary, and the pedicle is sectioned between the two
- Remove the excess tissues from the ovarian pedicle
- Sutured the all layers of the abdominal wall with monofilament absorbent sutures
- closed the skin incision with skin glue, sutures, or surgical staples

Note:

- ✓ Haemostatic technique for ligation of the ovarian pedicle consists of the application of three haemostatic forceps
- ✓ Some times ligature may be placed through some of the perivascular tissues in the manner of a transfixing ligature
- ✓ A common technical fault is to ligate immediately adjacent to forceps ; therefore, essential to ligate well below the clamp
- ✓ After proper ligature pedicle is transected between the two distal forceps
- ✓ Pedicle should be grasped with atraumatic forceps
- ✓ Inspection of the pedicle for haemorrhage is done by removing the haemostatic forceps









Post Operative Care



- House rest, with no running, jumping or rough play for two weeks following surgery
- An Elizabethan collar may be necessary to prevent licking of the surgical wound
- Post operative supportive therapy
- Remove the skin suture after 15-21 days etc



Post-Operative Complications



- Subcutaneous emphysema
- Adhesions
- Peritonitis
- Seroma formation
- Wound dehiscence
- Metritis
- Suture abcess
- Herniation
- Urinary incontinence



- Evisceration
- Suppuration from the cutaneous wound
- *Haemorrhage-* at the level of -----
 - *Ovarian pedicle*
 - *Broad ligament*
 - *Uterine cervix*
- **Ovarian remnant syndrome (ORS)**-when the ovaries are incompletely removed
- **Stump granuloma**-Inflammation and granuloma formation can be caused by ligatures of non absorbable suture
- Stump Pyometra



CONCLUSION

- Ovariohysterectomy are a reliable tool for animal birth control
- Can be done by Open surgical methods or laproscopy
- With increasing age complications are more
- Although prognosis is good but should be perform on that animals which are in good general condition
- Techniques is also used to treat the uterine complications



THANK YOU

