



Tikrit University
College of Veterinary Medicine

Ovariohysterectomy

Subject name: Practical Surgery

Subject year: 5th stage

Lecturer name: Dr. Ali Ghazi Atiyah

Academic Email: alighazivet@tu.edu.iq



SCAN ME

Lecturers link

Ovariohysterectomy (OVH)

Anatomy of ovaries, Uterus and its Ligaments

- The ovaries are located caudal to the kidneys in both dogs and cats,
- Cat ovaries are mobile, oval and smooth in appearance before estrus
- The cranial portion of the broad ligament, or mesovarium, attaches the ovary to the body wall dorsolaterally and contains the utero-ovarian vessels, Cranially, it encloses the suspensory ligament,
- Caudally, the suspensory ligament is continued by the proper ligament, which attaches to the cranial end of each uterine horn
- The proper ligament, in turn, is continuous with the round ligament of the uterus.

Vessels , Lymph and Nerves Supply

- ovarian arteries arise from the abdominal aorta , The artery supplies the ovary and caudally, it anastomoses with the uterine artery
- In dog and cat the uterus is Y-shaped consists of a neck, body, and two horns.

Vessels, Lymph and Nerves Supply

Ovaries:

- The right ovarian vein drains into the caudal vena cava, and the left enters the left renal vein. The ovarian vein anastomoses with the uterine vein.
- The lymphatics drain into the lumbar lymph nodes.
- The nerve supply to the ovarian blood vessels is from the sympathetic division of the autonomic nervous system, and the nerve fibers accompany the ovarian artery to the ovary.

Uterus:

- The uterus receives vascular supply from anastomosing ovarian and uterine arteries. The uterine artery is a branch of the vaginal artery and enters the mesometrium at the level of the cervix close to the body of the uterus.
- Uterine veins follow the course of arteries. Pressure in the uterine vein is higher than in the femoral vein.
- Lymphatics of the uterus drain to hypogastric and lumbar lymph nodes.

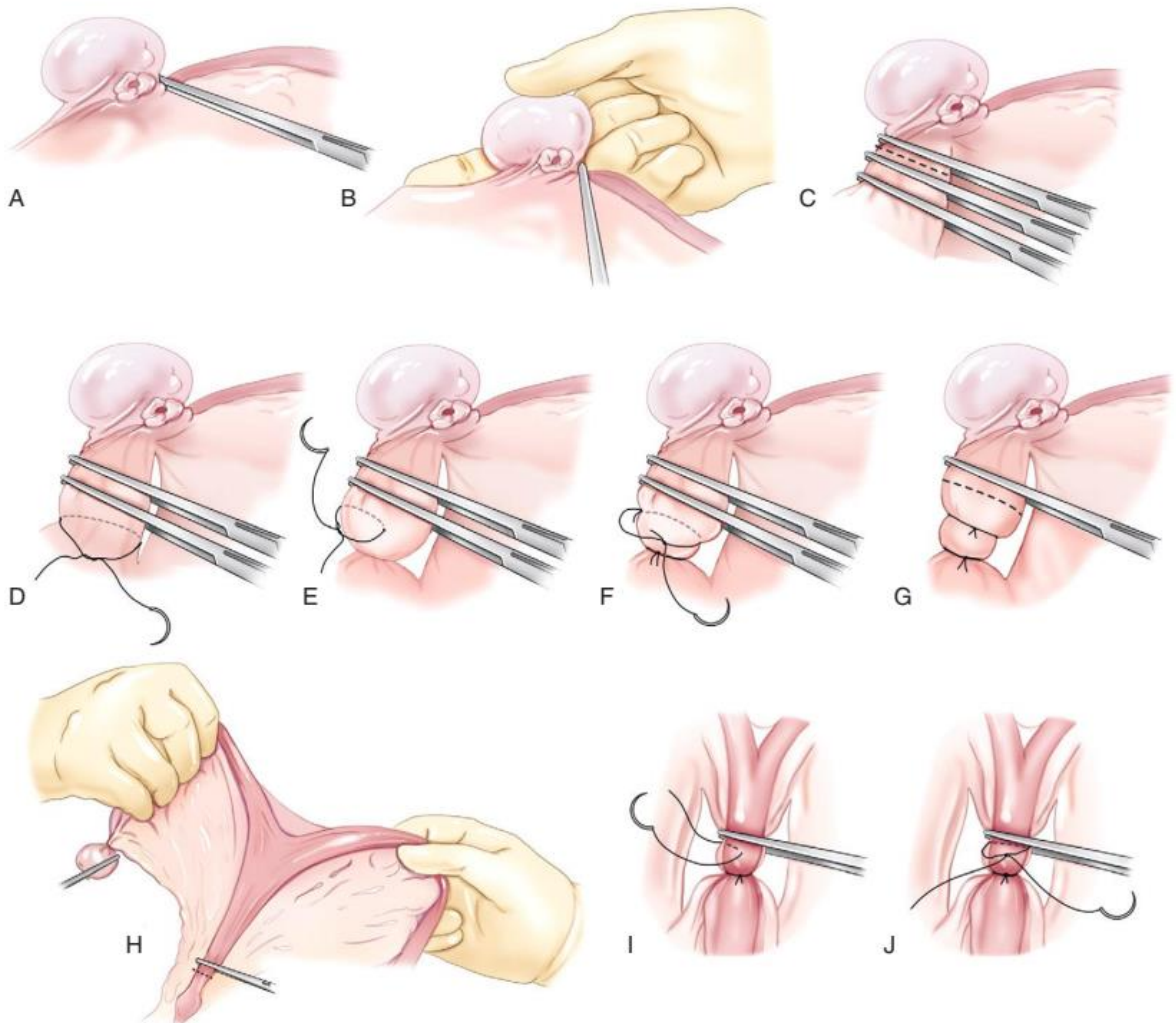
Indication of Surgery

- 1- *Ovarian or uterine Tumors*
- 2- **Congenital Abnormalities of the Ovary and uterus**
- 3- **Ovarian Cysts**
- 4- Mammary neoplasia
- 5- Uterine disease that not response to medical treatment (pyometera, metritis, endometritis)
- 6- Neglected dystocia
- 7- prevent unwanted pregnancy and risks of dystocia (difficult birth)
- 8- uterine rupture and uterine torsion

Surgical technique

- The abdomen is surgically prepared from 4 cm cranial to xiphoid to 4 cm caudal to the cranial pubic brim to allow the spay incision to be extended readily as needed
- A celiotomy is performed on the ventral midline and the incision is extended if visualization of ovaries or cervix is suboptimal
- The uterus is located by means of an ovariohysterectomy hook or index finger
- The ovary is grasped with fingers and mild, caudomedial traction is applied to the suspensory ligament and The suspensory ligament is digitally strummed as far craniodorsally as possible (near the kidney) until the ovary can be exteriorized from the abdominal cavity

- **Three-clamp technique.** A window is made in the broad ligament caudal to the mesovarium, and the ovarian vessel is clamped with three hemostatic forceps. Transection is planned to occur between the distal two forceps. If the length of the ovarian vessel does not allow for three forceps, the third is placed caudal to the ovary across the mesovarium at the level of the proper ligament, and transection will occur between the middle clamp and the ovary.
- An encircling ligature of 0 to 3-0 monofilament absorbable suture is placed ventral to the first forceps. The suture size is based on the vessel diameter.
- The ovarian vessel is transected distal to the second clamp and proximal to the third clamp or ovary and the vessel is inspected for bleeding.
- The first encircling ligature is placed dorsal to the most dorsal forceps, which is removed as the ligature is tightened so that ligature lies in the groove crushed by the forceps. A surgeon's throw is often required. A transfixing-encircling ligature is placed between the first ligature and the second forceps, with adequate distance so the forceps will not hinder ligation. The needle is backed through the ovarian vessel to minimize the risk for penetration of large vessels. One square knot is tied over the free end of the mesovarium.
- if no active hemorrhage is noted, the vessel is released into the abdomen.



Postoperative Care

- 1- The animal is warmed, especially if the female was in poor condition prior to the procedure,
- 2- Intravenous fluid therapy is administered with isotonic saline along with an injection of Vitamin C and corticosteroids. If necessary
- 3- The bitch or queen is then placed under antibiotic therapy for at least 5 days.
- 4- An Elizabethan collar should be placed on patients interested in licking their incisions
- 5- Activity is restricted for 5 to 10 days.
- 6- The sutures are removed after 10 days.

complication

- 1- inflammation of incision site
- 2- hemorrhage
- 3- loosening the throws
- 4- intestinal or urethral obstruction
- 5- urinary incontinence
- 6- Obesity
- 7- granuloma formation
- 8- Recurrent Estrus (Ovarian Remnant Syndrome)