

OVARIOHYSTERECTOMY IN A NEW ZEALAND WHITE DOE RABBIT

K.V. Sandesh¹, L. Suresh², K.M. Ranjith³ and G. Kamalakar^{4*}

¹PG scholar, ²Associate Professor, ³PG scholar, ⁴Ph. D. scholar

Department of Surgery and Radiology, Veterinary College, Hebbal, Bengaluru, Karnataka

E-mail: drkamal1vet@gmail.com (*Corresponding Author)

Abstract: A one year old New Zealand doe Rabbit was presented to the clinic for spaying. Palpation of abdomen ruled out pregnancy. Ovariohysterectomy was performed using xylazine and Ketamine, maintained under Isoflurane inhalant anesthesia. Animal recovered uneventfully within a week.

Keywords: New Zealand Doe Rabbit, Ovariohysterectomy, Ketamine, Isoflurane.

INTRODUCTION

Pet rabbits should be spayed, as uterine neoplasia is common in intact female rabbits. Ideally rabbits should be spayed early in life (4 – 6 m of age). Undesirable effects of spaying in does' include increased ageing of ligaments, osteoporosis, and urinary incontinence. Colonic obstruction and ureteral stenosis have also been reported as complications of ovariohysterectomy in does (Perpiñán, 2019). As rabbits are prone to the development of adhesions after surgery, gentle surgical technique with minimal tissue handling is important, and the use of gloves with talc, or of large-diameter suture material, should be avoided (Harcourt-Brown, 2014). The present paper describes ovariohysterectomy in a New Zealand White Rabbit.

CASE HISTORY AND CLINICAL OBSERVATIONS

A 1 year old New Zealand doe Rabbit weighing 2.3 kg was presented to the Department of Surgery and Radiology, Veterinary College, Hebbal, for the purpose of spaying. Animal was active with all physiological parameters within normal range. Pregnancy was ruled out by abdominal palpation.

TREATMENT AND DISCUSSION

The Rabbit was anaesthetized using Xylazine Hydrochloride @ 5 mg/kg BW and Ketamine Hydrochloride @ 35 mg/kg BW IM and maintained under inhalant anaesthetic Isoflurane 0.5%. Animal positioned in dorsal recumbency and ventral abdomen area was

prepared aseptically. A 3 cm incision was made, midway between the umbilicus and cranial rim of the pelvis over skin, subcutaneous tissue and linea alba. The ovary, fallopian tube and associated fat pads carefully exteriorized. The ovarian ligament was transected to facilitate the exteriorization, artery forceps were clamped on the ovarian pedicle and ligature placed below the forceps by using chromic catgut no. 0. Ovarian end was severed and checked for haemorrhage before the stump returned to the abdomen. The same procedure was performed on the contralateral ovarian end. The uterine vessels within the mesometrium were identified and ligated on either side of the uterus using chromic catgut no. 0. The double cervix is clamped and transfixation was done. Ligated, severed the cervix and checked for bleeding. The abdominal rent and the skin incision was closed in simple interrupted pattern using polyglactin 910 no. 0 and protective bandaging done.

Rabbits have a bicornuate duplex uterus, which lacks a uterine body. The separate uterine horns have their own cervix and enter into a single long vagina. The indications for ovariohysterectomy are to prevent breeding, prevent uterine and ovarian neoplasms and other diseases, reduce the incidence of mammary gland disease, prevent false pregnancies, and reduce hormonal territorial behaviour (Millis and Walshew, 1992). Sexual maturity in does occurs at 4–8 months of age and Routine ovariohysterectomy is typically performed between 5–8 months of age, but it can also be performed at a later time. Endoscopic or endoscopy-assisted ovariectomy and ovariohysterectomy have also been described in rabbits (Divers, 2015). Pharmacological suppression of fertility has been achieved in some male and female rabbits using 4.7 mg Deslorelin subcutaneous implants. The effect is seen after 2 weeks from the implantation and lasts for about 6 months, although 100% efficacy is not achieved in all cases (Risi, 2014) but availability of deslorelin was not there in college and owner who own this animal, wanted a permanent remedy so surgery was performed. The anaesthetic-related death rate of healthy rabbits within 48 hours is 0.73 per cent (Brodbelt et al., 2008) but in this case no complication of anesthesia noticed and animal recovered eventually.

REFERENCES

- [1] Brodbelt DC, Blissitt KJ, Hammond RA, Neath PJ, Young LE, Pfeiffer DU and Wood JL. (2008). The risk of death: the confidential enquiry into perioperative small animal fatalities. *Veterinary Anaesthesia and Analgesia* 35: 365 – 373.
- [2] Divers SJ. (2015). Endoscopic ovariectomy of exotic mammals using a three-port approach. *Veterinary Clinics: North American Exotic Animal Practice*. 13 (2): 255 – 272.

- [3] Harcourt-Brown, F. (2014). General surgical principles and neutering. In: Varga M. (ed). Textbook of Rabbit Medicine. 2nd edn. Edinburgh: BH. Pp: 425 – 434.
- [4] Millis DL and Walshaw R. (1992). Elective castrations and ovariohysterectomies in pet rabbits. Journal of American Animal Hospital Association. 28 (6): 491.
- [5] Perpiñán D. (2019). Rabbit neutering. Companion Animal, 24 (04): 162 – 170.
- [6] Risi E. (2014). Control of reproduction in ferrets, rabbits and rodents. Reproduction in Domestic Animals. 49 (2): 81 – 86.

Fig 1: Photography showing aseptically prepared surgical site with inhalant anesthesia



Fig 2: Photography showing exteriorized uterus and ovary.



Fig 3: Photography showing ligated uterus and body of cervix.



Fig 4: Photography showing closed linea alba.

