

Rabbit neutering: the open technique unveiled

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This case report describes the successful castration performed in nine young male rabbits without closing their inguinal canal to prevent unwanted breeding and address their behavioural issues. Eight young male New Zealand white rabbits between 6-9 months of age were presented for castration. All the rabbits were healthy and active upon presentation. The clinical examination was normal in all the patients. Amoxicillin sulbactam (21 mg/kg body wt, i.m.) and Meloxicam (0.2 mg/kg body wt, i.m.), were injected before the surgery.

The rabbits were sedated with xylazine (6 mg/kg body wt, i.m.) followed by ketamine (65 mg/kg body wt, i.m.). Anaesthesia was maintained with 2% isoflurane, with oxygen flow rate of 200 mL/kg/min. The area around the inguinal pouch was scrubbed and prepared aseptically for the procedure. The animals were positioned in dorsal recumbency with hindlegs held apart. The testicles were massaged out of the abdominal cavity and held between the forefinger and the thumb of the left hand. The thin scrotal skin was carefully incised and the testis was pulled out without opening the layer of tunica vaginalis. The testis was held with tissue forceps and the spermatic cord was clamped using two mosquito haemostats. The spermatic cord was then ligated between the clamps and severed proximal to the ligature. The stump was checked for any haemorrhage and released back. Both the testicles were properly ligated and incised. The inguinal canal was left open and only concealed with fatty tissue in all the rabbits. The skin was sutured with vicryl 3-0 in a horizontal Mattress suture pattern.

Recovery was uneventful in all the animals as conveyed upon telephonic consultation by the owners.

Neutering in domestic rabbits is a common surgical procedure performed preferably five months or afterwards, but it can also be done at three months if testicles have descended sufficiently. The rabbit bucks are neutered to prevent unwanted hormonal behaviours like territorial aggression and scent marking, breeding and obsessive copulatory behaviour towards toys, other animals or owners (Perpiñan, 2009).

Neutering eliminates the risk of reproductive cancers especially testicular cancers in male rabbits. Neutered rabbits are seen to exhibit stable litter box habits and are calmer and easier to handle (Rosenthal, 2001). The surgical procedure of neutering is done under general anaesthesia. Fasting in rabbits is not mandatory; however, pre-anaesthetic fasting of 1-4 hr is recommended as they tend to accumulate food and fluid within the oral cavity and oropharynx. Proper anaesthetic monitoring is important to ensure success of the whole procedure. Maintenance of normal cardio-respiratory function and body temperature should be monitored (Flecknell and Thomas, 2015).

The rabbits should be positioned in dorsal recumbency after anaesthesia. They can retract the testicles into the abdomen if anaesthesia is light (Harcourt-Brown, 2014). The scrotal skin in rabbits is very delicate and thin. Hence the fur should be plucked or clipped, scrubbed and prepared aseptically (Perpiñan, 2019).

Since the inguinal rings are open in rabbits, to prevent the post-surgical herniation of abdominal contents, the inguinal rings need to be filled with fat or closed (Jenkins, 2012).

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