

Short Communication

DYSTOCIA IN RABBIT AND ITS SURGICAL MANAGEMENT

P. Sarkar¹, D. Mandal^{1*}, V. Kumar², M. Mondal³

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ABSTRACT: A six year old New Zealand White rabbit was presented at Veterinary Clinical Complex (VCC), West Bengal University of Animal & Fishery Sciences, Kolkata with the history of dystocia. The animal was dull, depressed and shedding a little amount of foetid discharge from vulva. The Radiographic examination showed a skeletal structure of fetus with lateral deviation of head. The fetus was removed by caesarean section with general anaesthesia and the rabbit was recovered well.

Key words: Caesarean section, Dystocia, Rabbit.

Case description

One female rabbit, 6 years of age, was presented at Veterinary Clinical Complex, Kolkata with dull, depressed and dehydrated condition. Clinically the doe was dull, depressed but remained responsive and there was presence of a little amount of vaginal discharge. As per the history, the doe was mated around 39 days back and straining initiated 4-5 days before bringing to VCC and secreted bloody vaginal discharge. But clinically normal vulva was observed with little amount of foetid discharge. On abdominal palpation the fetus was not felt clearly so the owner was advised for lateral abdominal X-ray. Radiographically the doe revealed single fetus with anterior presentation with dorso-sacral position but the head was deviated laterally (Fig. 1). Firstly it was attempted manually for extraction of fetus but failed due to narrow passage of vulva.

A quick decision was taken for surgery and prepared for caesarean section. The patient showed rectal temperature and heart beat 102^o F and 260 beats/minute, respectively. The animal was anaesthetized with xylazine and ketamin @5mg/kg and 50 mg/kg body weight, respectively (Martin and Kirsipuu 2016). After giving a mid-ventral incision through linea alba, the uterus was pulled out and incision was given on gravid uterine horn. The fetus was removed and found partially macerated (Fig. 2). Further breeding was discouraged and ovary-hysterectomy (OHE) was performed after ligation with chromic catgut (no. 1-0) at both ends of uterus *i.e.* ovarian and cervical ends. After flushing peritoneal cavity with

20 ml Metronidazole and 20 ml of antibiotic solution (Cifran), the uterus was closed by Lembert and Cushing method and laparotomy wound was closed by taking peritoneum with abdominal muscles by simple continuous method. But simple mattress pattern was followed for skin with non-absorbable suture (linex, no.1-0). The post operative treatment was given by administering ½ tea spoon full of Monocef- O (Ceftriaxone 100 mg) twice daily orally for 7 days, Melonex drop (Meloxicam hydrochloride) 5 drops twice daily for 5 days followed by regular dressing. The doe was brought at the clinics on 11th post operative day and suture was removed on the same day.

Analysis

Unlike other animals the female rabbit has a different and unique reproductive tract which has no uterine body and each of the uterine horn has its own cervix that opens directly into the vagina (Bishop 2002, Quesenberry and Carpenter 2004). Gestation period of rabbit ranges from 29 to 35 days averaging between 30 to 32 days (Harkens and Wagner 1989, Bishop 2002, Quesenberry and Carpenter 2004). Typical litter size for smaller breeds is 4 to 5 kitten and larger breeds may produce 8 to 10 kitten (Quesenberry and Carpenter 2004). Dystocia is the inability to expel the fetus from the uterus during parturition and may be due to maternal or fetal complications preventing the normal delivery. Maternal abnormalities include pelvic, vaginal or uterine abnormalities such as small pelvic size, narrow pelvic

¹ Assistant Professor, Department of Veterinary Gynecology and Obstetrics; ² Ph D Scholar, Department of Veterinary Surgery & Radiology; ³ Associate Professor, Department of Veterinary Clinical Complex, F/O Veterinary and Animal Sciences, West Bengal University of Animal and Fishery Sciences, Kolkata - 700037, West Bengal, India.

*Corresponding author. e - mail: mandaldurgadas@gmail.com



Fig 1: Radiograph showing single fetus with lateral deviation of head.

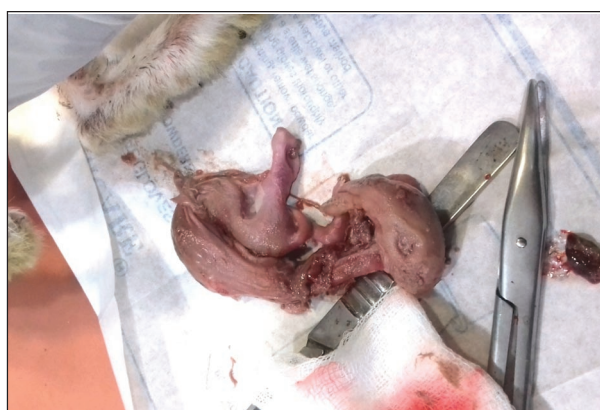


Fig 2: Macerated fetus after caesarean section.

canal and uterine inertia or may be due to obesity, malnutrition or hereditary cause (Pretzer 2008). Fetal causes include malpresentation, malposition or malposture, oversize, fetal death or fetal monster. Dystocia is not common in rabbit as normal delivery is typically completed within 30 minutes from the onset of parturition stages (Easson 2001, Harcourt 2002, Quesenberry and Carpenter 2004).

Indication of dystocia in rabbit includes persistent contraction, straining, bloody and greenish brown vaginal discharge (Quesenberry and Carpenter 2004). But present communication, revealed that dystocia occurred due to oversized fetus and deviation of head laterally. According to owner's history the straining was started 4 to 5 days back it means after completion of gestation period the doe normally tried to expel the fetus but due to over sized and mal posture she was unable to deliver normally. Open cervix facilitates the microbes to gain access the uterus and established infection leading to maceration. After removal of fetus by caesarean section, the owner was advised for ovary-hysterectomy (OHE) as most of the layers of uterine wall were infected. Accordingly, ovary and both the uterine horn were removed. Owner was advised to provide laxative diet for 2 to 3 days, analgesic (Melonex) and antibiotic treatment (Monocef-O) for 7 days to check primary infection. The rabbit was recovered uneventfully after caesarean section by taking proper postoperative care and management.

REFERENCES

- Bishop CR (2002) Reproductive medicine of rabbits and rodents. *Vet Clinics North America: Exotic Anim Practice* 5: 507-535.
- Easson W (2001) A review of rabbit and rodent production medicine. *Seminars in avian and exotic pet medicine* 10: 131-139.
- Harcourt-Brown F (2002) *Textbook of rabbit medicine*. Oxford: Butterworth- Heinemann. 348.
- Harkness JE, Wagner JE (1989) *The Biology of Medicine of Rabbit and Rodents*. 3rd edn. Philadelphia: Lia & Fabiger.
- Martin M, Kirsipuu V (2016) *Rabbit anaesthesia*. Institutional animal care and use committee, Cornell University. 6.
- Quesenberry KE, Carpenter JW (2004) *Ferrets, rabbits and rodents: Clinical Medicine and Surgery*. 2nd edn. St. Louis, Missouri, Saunders.
- Pretzer SD (2008) Medical management of canine and feline dystocia. *Theriogenology* 70(3): 332-336.