Abstract
A rabbit doe aged about 7-8 months was presented to the clinic with a history of dystocia for 24 hours. Radiography and ultrasonography confirmed full term pregnancy and it was managed successfully with caesarean section.

Key words: Rabbit; dystocia; caesarean section

Dystocia is the inability to expel fetus (es) from the uterus even after completion of full term and may be due to maternal or fetal causes. Dystocia was not common in rabbits as normal delivery was completed within thirty minutes after the onset (Quesenberry and Carpenter, 2004). Common causes of dystocia in rabbits included obesity, oversized kids, narrow pelvic canal, or uterine inertia (Bishop, 2002). Caesarean section was indicated when medical management was unsuccessful or fetal or maternal obstruction was unable to be corrected manually (Jutkowitz, 2005). This paper reports successful management of dystocia in a rabbit doe with caesarean section.

Case History and Observations
A rabbit doe aged about 7-8 months and weighing about one kg was presented to the clinic with a history of dystocia. The doe delivered a still born bunny a day earlier. On observation it was calm and unresponsive but showing straining. It was treated unsuccessfully with oxytocin and calcium gluconate by practicing veterinarians. Plain radiography depicted a radio-opaque structure near the pelvic inlet indicative of fetal skeleton (Fig:1); while ultrasonography revealed a clear gravid uterus containing nonviable fetus (Fig:2). As an emergency, caesarean section was performed.

Treatment and Discussion
After aseptic preparation of mid ventral abdomen, sedation was achieved by using xylazine @ 5mg/kg body weight and Ketamine @ 30 mg/kg body weight. The gravid uterus was approached by caudal midventral abdominal incision and dead fetus was exteriorized by making incision on the least vascular area of uterine wall. (Fig:3). Uterine incision was closed with cushing’s pattern followed by lambert’s suture using 5-0 chromic catgut. Abdominal wall was closed in a standard manner using 2-0 chromic catgut after adequate abdominal lavage with normal saline. Skin incision was closed using 1-0 black braided silk. Postoperatively it was administered with Enrofloxacin @ 7.5 mg/kg body weight PO, Meloxicam @ 0.1 mg/kg body weight PO and Metaclopramide @ 0.5mg/kg body weight PO for seven days besides regular dressing of wound with povidone iodine ointment. Skin sutures were removed on 10th postoperative day and the doe recovered uneventfully without any complications.

Fig 1. Skiagram showing fetal skeleton (arrows) near the pelvic inlet.
Unlike other species, rabbit doe has a unique reproductive tract in that it lacked a uterine body and each of the uterine horn has its own cervix that opened directly into the vagina (Bishop loc.cit.). The first and second stages of labor in rabbits occurred almost simultaneously as parturition typically lasted thirty minutes (Harcourt-Brown, 2002). Primary uterine inertia may be associated with hypocalcaemia, obesity, overstretched of the myometrium from large litters and conversely, inadequate uterine stimulation from small litters (Pretzer, 2008). Secondary uterine inertia or uterine fatigue occurred due to exhaustion and lack of myometrial contractions after prolonged attempts to expel fetus, which persisted following the relief of the obstruction (Jutkowitz, loc.cit.). However, in the present case, the aetiology of dystocia was thought to be due to inadequate uterine stimulation due to small litter size (2 kids only) as the radiograph did not reveal any abnormalities in presentation, position and posture. Gastric motility modifiers like Metaclopramide or Cisapride should be used in rabbits to avoid deaths due to post-anesthetic ileus in the postoperative period. It was concluded that caesarean section should be performed as early as possible when the labour signs in rabbits extend beyond thirty minutes for the viability of both dam and fetus.

**Summary**

The incidence of dystocia due to small litter size in a rabbit doe and its successful surgical management through laparohysterotomy has been reported.

**References**


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**Fig 2.** Ultrasonography showing hyperechoic structure indicative of fetal skeleton (arrows).

**Fig 3.** Photograph showing exteriorization of fetus from gravid uterus.