

EXTRA-UTERINE PREGNANCY IN A MURRAH BUFFALO – A RARE CASE REPORT

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ABSTRACT

The present communication reports a rare case of dystocia due to ectopic pregnancy which was relieved by caesarean section in a pluriparous Murrah buffalo at Teaching Veterinary Clinical Complex, Govind Ballabh Pant University of Agriculture and Technology, Pantnagar, U.S. Nagar, Uttrakhand, India.

Keywords: *Bubalus bubalis*, buffalo, dystocia, ectopic pregnancy, caesarean section

INTRODUCTION

Ectopic or extrauterine pregnancy is a pathological condition that consists of a pregnancy developing in a site different from the uterus. There are no definite cause and mechanisms leading to this pathological (Corpa, 2006). On the basis of the location, two types of ectopic or extrauterine pregnancy could be recognized i.e abdominal and oviductal pregnancy. Further, this pathological condition may be classified as primary or secondary (Bouyer *et al.*, 2002; Corpa, 2006; Kriebs and Fahey, 2006). The primary extrauterine

pregnancy occurs as a result of the waves of the antiperistaltic-oviductal contractions, or as a result of oviductal obstruction, a fertilized ovum could not be transferred to the uterus. It may then fall out into the abdominal cavity and attach itself to the peritoneum, omentum, liver, spleen, or onto the outside part of the uterine tube, or the uterine body (Dzięcioł *et al.*, 2008). Primary ectopic pregnancy is not usually diagnosed in animals. The only exception is rodents and lagomorphs. They have, same as humans, a discoid, hemochorionic placenta, and the occurrence of ectopic pregnancy in these animals is relatively common. The type of placenta present in the rest of domestic animals probably makes it impossible to develop the primary extrauterine pregnancy. The oviductal pregnancy is most commonly seen in humans. In animals this type of ectopic pregnancy was only recorded in primate monkeys (Jerome and Hendrickx, 1982).

False or secondary extra-uterine pregnancy is seen occasionally in all domestic animals. Harvey in 1960 to 1961 described an extra-uterine pregnancy in a cow. In this condition the fertilized ovum, embryo or foetus develops normal placental relationships with the endometrium and the foetus reaches recognisable size it then escapes from the uterine cavity either into abdominal cavity or

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the vagina. These conditions usually occur in the last two-thirds of the gestation period. A one-year study on the main causes of rabbit doe discard was performed on two farms where incidence rates of 7.8% and 1.6% respectively were reached for abdominal pregnancies (Segura *et al.*, 2004).

The causes and mechanisms leading to an ectopic implantation of the ovum in animals and humans are not equally or always clearly defined (De Cecco *et al.*, 1984). Although different studies seem to indicate that ectopic pregnancy is an infrequent condition, numerous reports in both humans and animals exist. This denotes the enormous interest of an ectopic pregnancy given its clinical, pathological and scientific repercussions.

CASE HISTORY AND CLINICAL OBSERVATIONS

A pleuriparous full term pregnant Murrah buffalo of fourth parity which was about 10 years old was presented in TVCC (Teaching Veterinary Clinical Complex) Pantnagar, District Udham Singh Nagar, Uttarakhand, India. She was in intermittent straining since last 24 h, dull, anorectic. The history revealed that the amniotic bag already ruptured with foetal part i.e. limbs projecting outside. Traction on both the limbs did not help to deliver the foetus by the local veterinarians. Thorough per-vaginal examination, it revealed that the foetal limbs were ankylosed and the head was out of reach. The ventral portion of the vagina was ruptured, urinary bladder of the dam exposed (Figure 1) and foetal parts lodged into the abdominal cavity. This case was diagnosed as accidental ectopic or extra-uterine pregnancy and it was decided to perform the caesarean operation to save the life of dam.

TREATMENT AND DISCUSSION

Caesarean section was performed through the left oblique abdominal incision and a fully developed foetus was removed from the abdominal cavity inside the omentum. A small quantity of sero-sanguinous fluid and many fibrinous clots of yellow colour were present abdominal or omental cavity and with absence of foetal fluids. After removal of foetus, the foetal membranes were found to have several fibrous attachments to the serosa of the rumen. These attachments were separated with some difficulty by blunt dissection. Same parts of foetal membranes extended into the contracted uterus through a tear about 20 cm long in the ventral floor of the vagina. They separated from the cotyledons readily and were removed. The abdominal incision was closed in usual manner and the tear in the vagina was incised and made acute by B.P. blade and sutured blindly by inserting the hand in the vagina.

Post operatively the dam was administered with intravenous DNS 2 litres, NS 3 litres, RL 2 litres, Calcium borogluconate 450 ml and Ceftriaxone 4.5 g and Meloxicam 12 ml intramuscularly. Supportive antibiotic therapy was prescribed and the patient made a steady uneventful recovery. In the present case, following a correct diagnosis, dystocias due to ectopic pregnancy was relieved by caesarean section of the buffalo.

It was observed that, the dead foetal limbs were ankylosed, the vertebral column kyphosis, head contracted with parrot mouth i.e. the mandible was not fully developed (Figure 2 and Figure 3).

Secondary ectopic pregnancies have been previously reported in cats (Wozniak, 2009; Dzięcioł *et al.*, 2012; Mirsepehr *et al.*, 2015), cow (Harvey, 1961; Botcherby 1980; Hedge 1989), sheep (Davies, 1982; Madani and Targari, 1984;



Figure 1. Ruptured vaginal wall with exposed urinary bladder in dam.



Figure 2. Foetus with general ankylosis, parrot mouth and dorsal deviation of vertebral column.



Figure 3. Parrot mouth in ectopic buffalo calf.

Mitchell, 1989) and rabbits (Marcato and Rosmini, 1986; Rosell, 2000; Segura *et al.*, 2004). The cause of ectopia of the fetuses may be related to injury or traumatic rupture of the uterus during pregnancy or to abnormal disposition of the ovum after its fertilization (Colhy, 1986).

The present occurrence probably represents a secondary ectopic pregnancy in which the fetuses dropped out of the uterus by means of a tear in the vaginal wall. The foetus escaped from uterus into abdominal cavity following vaginal rupture and was not viable at the time of surgery (Hosgood, 1989). To determine the precise time and the origin of the uterine rupture in this case were impossible because the owner had given us insufficient history to the veterinarian. In this case the direct, underlying reason for the rupture of the vaginal wall might be explained by the trauma caused by slipping or butting by other animals. The main idea for this described case is the general state of the females after the vaginal wall damage.

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