False extra uterine pregnancy in non descriptive goat: A case report

Prabaharan Vaiyapuri, Palanisamy Mahakrishnan, Rajkumar Ramasamy, Raja Senkodan and Tamil Mahan Paramasivam

Abstract

An one and half year old Non Descriptive Doe was brought to Veterinary Clinical Complex, Veterinary College and Research Institute, Orathanadu with the history of full term pregnant and having intermittent straining with swelling in the udder region for past 15 days. Animal was apparently healthy and no abnormal genital discharge was seen. Previous history of trauma or accident was unclear as reported by the animal owner. Clinical examination reveals dull, depressed, reduced appetite, weakness, swelling on the anterior part of the udder region for the last two weeks. On examination of the udder region, a fetal mass was protruding through the anterior part of the udder region. Radiography reveals the presence of fetus extraterine. Based on clinical examination, the case was diagnosed as false extrauterine pregnancy and was corrected by surgical procedure. The doe was completely recovered on the 5th day post-operatively. The present study describes the successful surgical management of a false extrauterine pregnancy in a non descriptive doe.

Keywords: Uterine pregnancy, animal owner, trauma or accident

Introduction

False or secondary extrauterine pregnancy is occasionally seen in all domestic animals except mare [1]. In this condition, fetus reaches of recognizable size in uterus, and then it escapes either in abdominal cavity through tear in uterus (abdominal pregnancies) or in vagina through cervix (vaginal pregnancies). Ectopic pregnancy means a pregnancy occurring other than in the cavity of the uterus. While this condition is well-known in humans, it is rarely diagnosed in animals [2]. Two types of ectopic pregnancy are mainly recognized: (1) tubal pregnancy occurs when an oocyte is fertilized and then remains in the oviduct and (2) abdominal pregnancy occurs when the gestation develops in the peritoneal cavity. The secondary may be subdivided into two subtypes: the primary form, when a fertilized oocyte enters the peritoneal cavity and becomes attached to the mesentery or abdominal visceras, and the secondary form, which follows the rupture of an oviduct or the uterus after the fetus has been implanted, and the fetus is expelled into the peritoneal cavity. False or secondary extrauterine pregnancy is occasionally seen in all domestic animals except mare. In this condition, fetus reaches of recognizable size in uterus, and then it escapes either in abdominal cavity through tear in uterus (abdominal pregnancies) or in vagina through cervix (vaginal pregnancies). The cause of uterine rupture is largely unknown but, it may occur due to violence or trauma, uterine torsion, weakening of uterine musculature or chronic perimetritis [1].

History and Clinical Examination

A one and half year old Non Descriptive Doe was brought to Veterinary Clinical Complex, Veterinary College and Research Institute, Orathanadu with the history of full term pregnant and having intermittent straining with swelling in the udder region for past 15 days. Previous history of trauma or accident was unclear as per the animal owner (Fig.1). Animal was dull and depressed with rectal temperature recorded 38.2 ºC. On palpation of anterior part of the udder wall, fetal mass were felt (Fig.2). On per-vaginal examination, the cervix was closed and no evidence of abnormal discharge was present. For confirmation of the presence of the fetus, radiography was carried out and it reveals the fetel skeleton on the lower part of the pelvic and udder region (Fig.3). Based on clinical examination, the case was diagnosed as false extrauterine pregnancy.
Treatment and Discussion

The animal was placed in the surgical table at dorsal recumbency. The anterior part of the udder was prepared for aseptic surgery by scrubbing with povidone iodine. With help of the BP blade the udder skin covering over the fetus was slightly incised and the dead fetus was removed by traction from the body of the doe (Fig.4 & 5). Minor haemorrhages were guarded through ligation. After removal of the fetus the internal organs were examined, there was no involvement of the abdominal cavity and urinary bladder, the entire uterus was separated from the fetus and hanging from the inguinal hernial ring. The uterus was carefully detached from the inguinal hernial ring due the uterus was necrotic. Moreover, excess skin of the sac was removed, and the subcutaneous tissue and skin were closed with an interrupted horizontal mattress using silk 2-0 size (Fig.6) and the surgical site was properly cleaned and dressed in a 5% Povidone-Iodine solution gauze was applied in the dead space and discharged to home (Fig.6). Postoperatively, the doe was treated with Inj. Ringers Lactate 200 ml i/v, Inj. Cefotaxime @20mg/kg i/v, Inj. Flunixin @1.1mg/kg i/v, Inj. Chlorpheniramine maleate 2ml i/m (Fig.7). Antibiotics, fluid therapy, anti-inflammatory and anti-histaminic drugs were continued for five days and animal recovered uneventfully (Fig.8 & 9).

The most commonly observed obstetric emergency in small ruminants is dystocia. Dystocia causes economic losses with increasing perinatal deaths, high incidences of puerperal diseases and infertility in small ruminants[6]. The incidence of dystocia is higher in goats than sheep [4]. Uterine rupture in a doe may be caused by abnormality of presentation, position or posture with persistent violent straining, faulty obstetrical technique, uterine torsion, feto-pelvic disproportion, large sized or large number of foetuses and accident [1-5]. Uterine rupture can occur in most of the cases where animal has applied expulsive force in the absence of sufficient cervical dilatation [6]. All cases of uterine ruptures have to be surgically managed immediately following diagnosis or else it can progress to septic peritonitis that can lead to mortality. Uterine rupture is a possible secondary complication of prolonged dystocia to be treated immediately. Ectopic pregnancy associated with uterine tear or scar is a warning that it occurred at a later stage of pregnancy. Presence of nonviable fetus with absence of fetal fluid in ultrasonographic examination is the positive indication of ectopic pregnancy [7][8]. The fetus that is concerned in ectopic pregnancy are usually sterile in nature, without any infectious organism that might cause secondary peritonitis [7, 9].

Ectopic pregnancy occurring without any scar in the uterus can be considered as an indication of its early occurrence [7]. Ectopic pregnancy may be occurred due to excessive pressure caused by hydroallantois in a cow [10]. In primates, true ectopic pregnancy could be occur due to the peculiar placentation, whereas in case of domestic animals secondary ectopic pregnancy occurs commonly [11]. Secondary abdominal pregnancies occur because of rupture of uterus after the implantation of fetus has occurred [12]. Inguinal hernia is protrusion of an abdominal organ through the inguinal canal [13]. Traumatic inguinal hernia may possibly occur because of congenital weakness of the musculature or abnormality of the inguinal ring [14]. The cases with imperfect cervical dilatation must be treated as emergencies to protect the life of foetuses and hence the ways are to be taken for immediate dilatation of cervix or for removal of the fetus surgically by emergency caesarean section [15]. Brozos et al., 2013 [16] reported a rare case of ectopic pregnancy in sheep, occurred through a caesarean scar in the uterus. Animals carrying extrauterine foetuses are appears that healthy and diagnosis of ectopic pregnancy is usually an incidental finding [17]. In the present case the false extra uterine pregnancy can be easily identified by radiography in later stages of pregnancy and hysterectomy was performed to save the life of the dam. After 10-day follow-up post-operation, the wound was healed completely, and the doe was under good health condition.
Conclusion
In conclusion, false extra uterine pregnancy can be simply identified by radiography and treated quickly to save the lives of the dam as well as to avoid economic losses to the farmers.

References