



E-ISSN: 2278-4136  
P-ISSN: 2349-8234  
JPP 2017; 6(6): 2370-2371  
Received: 19-09-2017  
Accepted: 20-10-2017

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## Ectopic pregnancy in a Ewe: A case report

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### Abstract

Ectopic pregnancy indicates a pregnancy that takes place outside the uterus. This rare condition in animals can arise due to very specific causes, which can be broadly categorized into two types viz. primary and secondary causes. The former includes either the loss of an oocyte directly through the fimbria of an oviduct and is fertilized in the abdominal cavity and develops there, or a fertilized retrograde ovum enters the peritoneal cavity and becomes attached to the mesentery or abdominal viscera. In an accurate primary cause, placentation must exist on either a peritoneal or omental surface. The Secondary cause includes the rupture of an oviduct or the uterus after the fetus has been implanted, which may either be due to an external trauma, an internal pressure or a surgical scar. In the present case, the pregnancy was of primary cause, wherein, both the oviducts and the uterine horns were intact and single dead and deformed ectopic foetus was attached to the abdominal viscera. The location of the attachment was intestinal mesenteric area. The foetus was taken out by a caesarean section through left flank laparotomy and the ewe recovered completely.

**Keywords:** Ectopic, Pregnancy, Ewe, Caesarean section

### Introduction

Ectopic pregnancy is an important pathology that was recognized over 900 years ago <sup>[1]</sup>. <sup>[2]</sup> Reported an annual ectopic pregnancy rate of 20.70 per 1000 reported pregnancies, and of 1.03 per 1000 women aged 15–44 years. Extrauterine or ectopic pregnancies have been described in humans and categorized thoroughly <sup>[3]</sup>. Although previously rare, the incidence of pregnancy implantation within the myometrium scar of a prior caesarean is increasing. This increase is hypothesized to be due to both an increased recognition of the condition, and the increasing number of caesarean operations that are being performed <sup>[4, 5]</sup>. This clinical communication describes a case of ectopic pregnancy in a ewe and the dead and deformed ectopic foetus was attached to the abdominal viscera.

### Case history

A case of dystocia in a crossbred Ewe was reported by a progressive sheep farmer via a telecommunication. The animal had shown signs of lambing (labor) 8 hours back and was off feed and off water since then. The animal was 34 months old and had previously lambed one single male kid before 11 months. The animal was one amongst the flock of around 125 animals, reared by a local farmer at village Chatergul, Srinagar, Kashmir- India.

### Clinical observations

On palpation per vaginum, the cervix was found closed, without any dilatation. The udder was partially engorged with milk. The rectal temperature was 102.6°F. On abdominal palpation, a hard mass/ foetus was felt. The decision was immediately made to relieve the dystocia by performing a caesarean section through left flank laparotomy.

### Anaesthesia and control

The ewe was operated under a local infiltration anaesthesia using 2% Xylocaine Hydrochloride (Astra Zeneca, India Ltd.) at the farm (under field condition). The animal was controlled in lateral recumbency.

### Treatment

Intravenous fluid therapy with 1000 ml of Dextrose 5% and sodium chloride 0.9% (Albert David, Ltd. India) was carried out intra-operatively. After preparing the surgical site, an adequate left flank laparotomy incision was given to locate the gravid horn as a routine. But, there was a little difficulty in locating the gravid horn. Further, we found a floating type of

dead and deformed foetus (Fig. 1) which was attached to the abdominal viscera and the exact location of the foetal attachment to the maternal viscera was the intestinal areas in the regions of mesentery. Later on we located the uterine horns, which were very much pelvic in presentation and fully closed, without even a minor cut mark (Fig. 2).

After taking the foetus out from the abdominal cavity of the dam, the peritoneum and the muscle layers were sutured using number 2 chromic catgut and the skin was closed by using silk.

A course of antibiotic and NSAID was followed for 5 and 3 post operative days, respectively. Intravenous fluid therapy with 500 ml of Dextrose 5% and sodium chloride 0.9% (Albert David, Ltd. India) was carried out for 3 post operative days. The skin sutures were removed after 10 days and the animal recovered completely.

The ectopic dead foetus was a female. It had a closed abdominal wall and all the four limbs were noticeable. But, both the right fore and hind limbs were short and deformed (Fig 1). There was differentiation of a mouth, nostrils, digits and dew claws. These characteristics were earlier reported in an ovine foetus of 5–6 weeks gestation [6]. Furthermore, the length from the forehead to the base of the tail (crown-rump length) was measured and found to be 37 cm. Using this method, the age of the ectopic embryo was estimated to be approximately 130 days. It is possible that the foetus had shown normal development until the age of approximately 128 days with death occurring when the crude placental attachment no longer provided sufficient nutrition. This phenomenon has been previously described in hamsters [3].

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**Fig 1:** Dead and deformed ectopic foetus



**Fig 2:** Fully intact uterine horns without any cut mark