Delivery of Monster Fetus with Catlin Mark and Agnathia in Sheep - A Rare Case Report

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Abstract
A ewe after full gestation period with severe abdominal straining brought to the TVCC, Hisar. On per-vaginal examination, cervix was found fully dilated and complete ventral deviation of head. The dystocia was relived through caesarian section and a monster fetus of its rare kind removed.

Key Word: Agnathia, catlin mark, monster, ewe

Catlin mark is an opening in the frontal and parietal bone associated with severe central nervous system defects, prolonged gestation and is commonly seen in cattle and pig, and very rare in sheep (Roberts, 1971). It is one of the most frequently encountered congenital defects in cattle involving central nervous system which may account for 12 to 21 percent of congenitally defective calves (Leipold and Dennis, 1986) but rare in sheep. Agnathia (Absence of lower jaw) is observed in variety of forms in sheep and goat (Noakes et al., 2009). The present case describes a unique monster fetus with catlin mark and agnathia in a ewe.

Case History and Observations
A ewe of its 2 parity at full term was brought to the Teaching Veterinary Clinical Complex, Hisar with the history of ruptured water bag and severe abdominal contractions. In the field, traction was applied on both forelimbs of the fetus by laymen but could not deliver. Following ample lubrication of birth canal and hand, per vaginal examination revealed completely dilated cervix and complete ventral deviation of head. It was very difficult to deliver the fetus per vaginal, so, decided to perform the caesarian section to relieve the dystocia.

Treatment and Discussion
The ewe was stabilized by administration of fluid therapy and supportive medicines. Caesarean section was performed through the left paramedian approach under the local infiltration of 2%, Lignocain Hcl on the incision site. The dead fetus and placenta removed, and surgical wound closed as per standard procedure (Roberts, loc cit.). Post operative treatment was given for 7 days and ewe had uneventful recovery.

On gross examination, the fetus had characteristic mark on the frontal bone persisting as frontal foramina diagnosed as catlin mark (Roberts, loc cit.). Further exploration of fetus revealed an opening in the frontal bone of the head and defective ossification with lack of skin as well as subcutaneous tissue (catlin mark; Fig. 1). Catlin mark is a skull ossification disorder leading to an opening in the frontal region (Mupparapu et al., 2006). Along with catlin mark there was absence of the lower jaw (Fig. 2) in the present case which is known as agnathia (Roberts, loc cit.). On post-mortem examination, internal organs were found normal. The etiology of these defects in the present case is not known and the identification of etiological agents or causative mechanisms is extremely difficult, however, these may be caused by recessive gene trait (Banerjee, 2008). Catlin mark and agnathia are caused due to inherited lethal or semi lethal characters (Roberts, loc cit.). Glahn-luft et al. (1978) attributed the etiology of agnathia in the hypoxia of the ovine fetus during the differentiation of the first pharyngeal arch. Another
cause of agnathia could be the consumption of a teratogenic plant. In fact, Binns et al. (1965) found that sheep embryos were highly susceptible to the plant *Veratrum californicum* when it is eaten by ewes on day 14 of gestation. A case of extreme agnathia-otocephaly in a female lamb of the Chiotiko breed was reported by Pourlis (2008).

**Summary**

A rare case of inherited congenital defect named *catlin mark* and agnathia in a ewe fetus and its delivery through caesarian section is described here.

**References**


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**Polycystic Kidney Disease in a Persian Cat – A report**

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**Abstract**

5 year old Persian cat weighing 4.5 kg was presented to the University veterinary Hospital Kokkalai with the complaint of anorexia and weakness. Both right and left kidneys were found to be enlarged on abdominal palpation. On ultrasound scanning, multiple fluid filled cysts were observed in both kidneys. Hematological examination revealed leucocytosis. The biochemical examination revealed azotemia. Blood gas analysis revealed metabolic acidosis. The animal was treated with antibiotic and fluids.

**Key Words:** Polycystic kidney disease, Persian cat

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