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Case Report

A Rare Case of Placental Lipoma in A Holstein Friesian Crossbred Cow

S.P.S. GHUMAN[1], M. HONPARKHE[2], N.K. SOOD[3*] AND K. GUPTA[4*]

Department of Animal Reproduction, Gynaecology and Obstetrics,
[*]Department of Veterinary Pathology,
College of Veterinary Sciences,
Guru Angad Dev Veterinary and Animal Sciences University,
Ludhiana 141004 (Punjab)
ghuman_s@yahoo.co.in

ABSTRACT

A rare case of placental lipoma in a Holstein Friesian crossbred cow associated with fetal ascites is reported.

Key Words: Ascites, Dystocia, Lipoma, Placenta

Lipoma is one of the most common benign mesenchymal tumors involving growth of fat cells in a thin fibrous capsule. The ability of lipoma to trigger an angiogenic response is a critical step for its growth (Lucarelly *et al.* 1999). The present report puts on record a rare case of placental lipoma associated with fetal ascites in a Holstein Friesian crossbred cow.

A 9-year old Holstein Friesian crossbred cow at full term was referred to the teaching hospital of Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana with history of straining since 24h. Although 6-7h had passed after the rupture of allantoic and amniotic water bags yet no fetal part was visible. The cow had not been handled before admission to the hospital. Reportedly, none of the previous four parturitions showed such clinical signs.

Routine clinical examination did not show marked abnormality in the various physiological parameters. Per-vaginal examination revealed relaxed and moist canal. Oedema or lacerations were not noticed. Fetus was lying in posterior longitudinal presentation and lumbo-sacral posture with both the hind limbs extended in the birth passage. Fetus was diagnosed dead on the basis of absence of rectal reflex and pulsation in the umbilicus. The presence of fluid thrill in an abnormally enlarged fetal abdomen suggested fetal ascites as the cause of dystocia.

Following caudal epidural anesthesia (10ml, 2% Lignocaine HCl, Qunocaine, q.p. pharmachem ltd., Derabassi, Pb.) and adequate lubrication of birth passage with sodium carboxy methyl cellulose gel (Carmellose-Na 1%, WDT, Garbsen, Germany), moderate traction was applied on the hind limbs but fetal delivery could not be achieved. Fetal abdomen was then punctured with a clean guarded knife to drain out the fetal fluids. The fetal abdomen size reduced in size and a dead female fetus was successfully removed with mild traction. The placenta was expelled out soon along with a thick, hard, red colored, tortuous mass resembling to a bunch of distended veins was attached to it (Fig 1B). The cow was discharged next day.

The fetus appeared jaundiced and had distension of abdomen. On post-mortem examination, the intestines were found distended with watery fluid (Fig 1A). Liver was slightly enlarged. Heart had right-sided dilatation. Kidneys were markedly congested. Tissue pieces collected from the tortuous mass and different fetal organs were immersed placed in 10% buffered formalin and dispatched for histopathological examination.

Histopathology of hard tortuous mass specimens revealed mature adipocytes with little pleomorphism (Fig 1C). The small veins or veinules within the mass appeared telangiectiasis

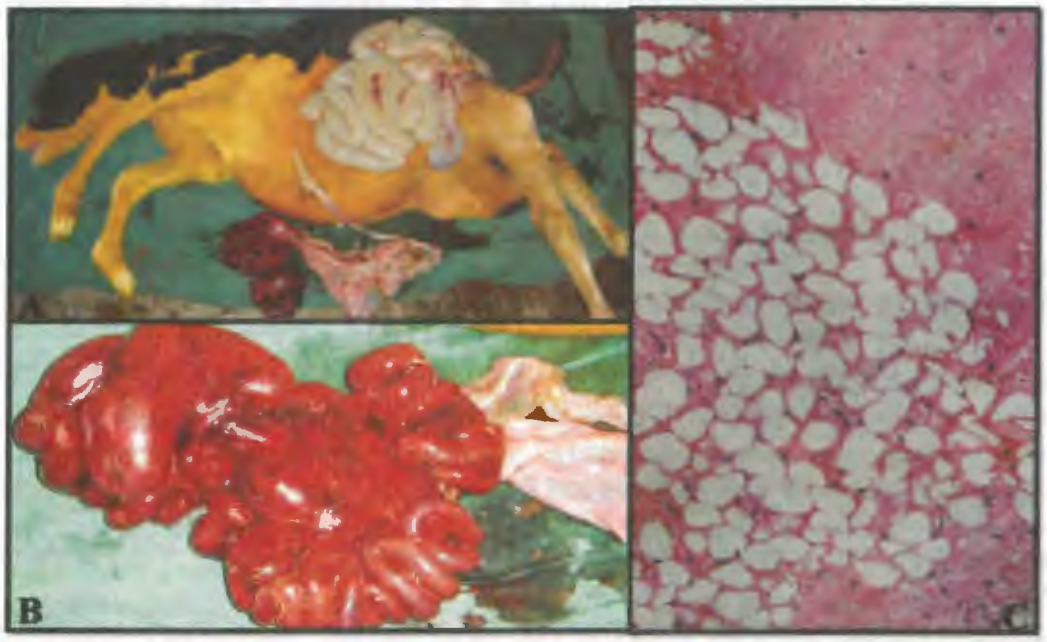

Fig 1: Placental lipoma in a crossbred cow. A) Jaundiced fetus having distended intestines and a red colored tortuous mass attached to placenta, B) A close view of red colored tortuous mass attached to placenta, C) Microscopic examination (HEx150) of red colored mass showing mature adipocytes with little pleomorphism and multiple hemorrhages between adipose tissue.

and there was multiple varying sized areas of hemorrhages between the adipose tissue (Fig 1C). Even the muscular lining of blood vessels was torn apart due to hemorrhages. On this basis it was classified as a case of placental lipoma with marked telangiectiasis and hemorrhages.

Dystocia due to fetal ascites in cows is well documented (Sloss and Dufty, 1980, Arthur *et al.* 1982). To the authors' knowledge, there are no reports of placental lipoma seen along with fetal ascites in ruminants. However, choriohemangioma of allantochorion is noticed in bovines and in humans it has been frequently associated with the dropsy of placenta (Karson and Kelly, 1941; Corcoran and Murphy, 1965).

This case suggests that placental lipoma can be linked to fetal ascites as placenta plays an important role in the excretion of fetal fluids (Sloss and Dufty, 1980). Other associated factors could be enlargement of liver due to an anomaly in the development causing stenosis. Also, the congestion of liver causes an increase in hepatic lymph and diminished urinary excretion of water (Jubb and Kennedy, 1970).

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