

Dystocia Due to Fetal Renal Fibrochondroma in A Cow- A Rare Case

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ABSTRACT

The present study reports a case of a Sahiwal cow at full term of gestation suffering from dystocia due to fetal cause. On the right ventro-lateral side in lumbar region of the fetus, a hard handball sized tumorous growth was observed which was broken into pieces in situ using chiseled hook and removed manually. The tissue samples were collected for histopathological studies and the case was confirmed as dystocia due to foetal renal fibrochondroma.

Key words: Cow, Dystocia, Renal fibrochondroma, Sahiwal.

INTRODUCTION

Renal tumours in the domestic animals have been reported infrequently with the exception of nephroblastoma in swine and chickens⁴. The etiology of such tumours may be due to generic factors, pesticides residues and environmental factors. A very little information concerning renal tumours occurring in large domestic animals is available. To best of our knowledge, no report concerning renal fibrochondroma in calves is available.

CASE HISTORY AND OBSERVATIONS

A Sahiwal cow (OPD No. 4-10732 dated 26-04-2018) at full term suffering from dystocia for last 10-12 hours was brought to the Veterinary Clinical Complex (VCC) of the

university. The case was handled at field level by a local paravet and failed attempt of traction was attempted. The case was misdiagnosed as a case of fetal ascites and referred to Veterinary Clinical Complex of LUVAS, Hisar. The animal was recumbent and exhausted.

TREATMENT AND DISCUSSION

After epidural anaesthesia with 2% lignocaine hydrochloride and proper lubrication with liquid paraffin, per-vaginal examination revealed fully dilated cervix and dead fetus in anterior presentation, with normal position and posture. On the right ventro-lateral side of lumbar region, there was hard handball sized tumorous outgrowth.

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Constant traction was applied on both the forelimbs by obstetrical chains and eye sockets by long blunt eye hooks. Simultaneously, by using the long chiseled hook the hard handball sized tumorous growth was broken into pieces, removed manually (Fig. 1B). Alternate three-point traction to both the forelimbs and fetal head was applied and a dead female fetus was delivered (Fig. 1A). Due care was taken into consideration to avoid any kind of injury to the birth passage.

Post-mortem examination of the fetus revealed tumorous growth in the right kidney; contralateral kidney and other visceral organs as normal. The tissue pieces from the mass were collected in 10% formalin for processed routinely by paraffin embedding and the sections were cut (4-5 micron) and stained with haematoxylin and eosin³.

Post-obstetrical treatment included Inj. oxytocin 50 I.U. in 500 ml on normal saline I.V., Inj. calcium-magnesium-boro-gluconate 450 ml I.V., Inj. Cefoperazone plus sulbactam 4.5 g I.M. and Inj. Flunixin meglumine 1000

mg. I.V., Inj. Vit. B. Complex 10 ml I.M. and Inj. Metronidazole 2500 mg I.V. Besides all the emergency management measures, the animal collapsed two hours after the treatment.

Microscopically, the tumour section revealed islands of cartilaginous mass composed of mature chondrocytes or chondroblasts present abundant fibrous connective tissue stroma. The proliferating fibrous tissue was composed of fibroblasts and fibrocytes (Fig. 1C). At places these were arranged in whorl-like pattern. On alcian blue staining, the cartilage appeared blue in colour surrounded by red stained fibrous tissue components (Fig. 1D). Gross and microscopical examination of kidneys confirmed the mass as congenital renal fibrochondroma. There is paucity of data of congenital tumors in a calf. They mainly include peritoneal mesothelioma, melanoma, and nephroblastoma². However, one case of fibrochondrolipoma in a full-term bovine foetus delivered by caesarean section was reported¹.

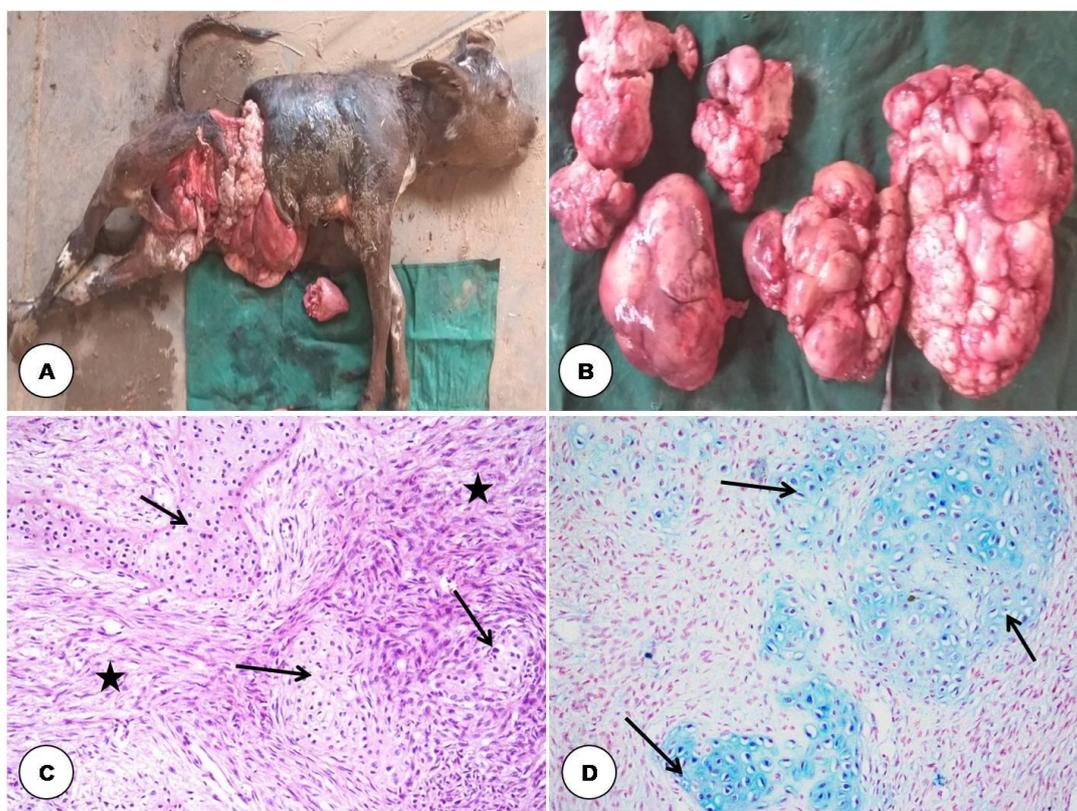


Figure. 1A: Dead foetus of cattle with embryonic defect.

Figure. 1B: Multiple variable sized fragments of kidney.

Figure. 1C: Tumour section revealed islands of cartilaginous mass composed of mature chondrocytes or chondroblasts present abundant fibrous connective tissue stroma (arrow). The proliferating fibrous tissue was composed of fibroblasts and fibrocytes. At places these were arranged in whorl-like pattern (Star). X200.

Figure. 1D: On Alcian blue staining, the cartilage appeared blue in colour surrounded by red stained fibrous tissue components. X200.

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