

CHORIONIC - CARCINOMA - A CAUSE OF REPEATED HYDROPSY IN A DAIRY BUFFALO

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ABSTRACT

A case of repeated hydropsy due to chorio-carcinoma in a dairy buffalo is described.

Key words: Buffalo, Chorionic - carcinoma, Hydropsy

Chorio-carcinomas arise from the germ cells of placental epithelium of the uterus and are usually found within the reproductive organs of humans (Khuu *et al.*, 2000) but rarely in animals (Jones and Hunt 1983). The clinical signs of such tumors vary depending upon their origin and local spread. These tumors are usually treated by surgical excision or chemotherapy and their prognosis is generally very good. A case of chorio-carcinoma leading to repeated hydropsy condition in a pluriparous dairy buffalo is reported.

CASE HISTORY AND OBSERVATIONS

A 9-months pregnant Murrah buffalo (SU-1422) in third parity with the history of normal calving was presented due to enlarged abdomen to GADVASU Veterinary clinics. However, during the first gestation, the animal had suffered from hydroallantois. Per-rectal examination revealed excessive accumulation of fluid in the uterus.

TREATMENT AND DISCUSSION

Considering the case as hydroallantois, pregnancy was terminated by injecting dexamethasone (40 mg *i/m*). After about 48 hours, the cervix dilated and approximately 150 liters of uterine fluid was drained. A live immature male calf was delivered with no gross abnormalities but the calf died after 2 hours. Cotyledon and caruncular biopsies were taken and preserved in 10%

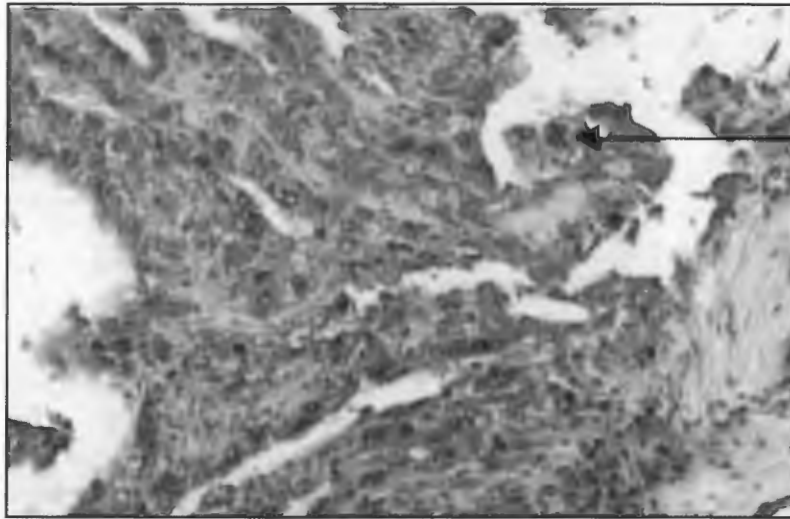
formalin saline. Tissues were sectioned at 5 μ m thickness and stained using haematoxylin and eosin (Luna, 1968).

Increased ionic permeability at the placentome unit has been hypothesized as one of the causes of hydroallantois. Moreover, it can be due to decreased number of placentomes and hence the hypertrophy of the rest (Arthur *et al.*, 1989). In the present case, grossly the size of placentomes was increased; therefore the malignant tissue was hypothesized to be one of the causes of increased permeability of placentomes leading to excessive accumulation of fluid.

Histopathological examination revealed cytotrophoblastic cells arranged in sheets or cords or villous like pattern. The neoplastic epithelial cells lining the cords or villi had multiple layers of hyperchromatic cells with central nuclei, and in places, forming syncytia (Fig.). The epithelial cell clusters were also found invading connective tissue as well as blood vessels. In addition, there were two hemorrhagic foci covering large areas (Fig). Chorio-carcinoma has been reported earlier in human beings as a cause of repeated abortions (Nguyen *et al.*, 1995). However, on scanning the available literature, similar reference could not be traced. On the basis of histopathological examination, the case of chorio-carcinoma is recorded in a hydroallantoic buffalo.

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Arrow depicts syncytia like cells

Fig. Syncytia like cells lining the epithelium, invading the connective tissue and blood vessels along with multiple foci of hemorrhages (H & E X 300)