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Surgical Management of Brisket tumours in a Bovines

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Abstract: Heavy breeds of buffaloes mostly developed large size, hard, non-painful tumours growth at the brisket region developed over a long period by friction or injury.Two Jafrabadi buffaloes were presented for surgical management of huge brisket tumour with ulcerative wound on ventral aspect of tumour. Under the xylazine sedation and local anaesthesia infiltration tumour mass was excised surgically. Histopathological examination of mass revealed fibroma. After surgery medicinal management along with antiseptic dressing was carried out for seven post operative days. Sutures were removed after 12 post operative days. No any post operative complications were recorded up to 6 months.

Key words: Brisket tumour, Fibroma

Introduction

Abnormal mass of tissue/ growth which was uncoordinated and exceeds that of normal tissue termed as neoplasm or tumour. Benign neoplasm was more commonly observed than malignant oneat brisket region [3]. Hard flooring, repeated injury leds to brisket tumours. Bovine cancer incidences were relatively increased day by day, which causes huge economical losses due to decrease in milk yield, carcass condemnation, treatment cost and mortality, whereas incidence of tumour was recorded highest in dogs followed by cattle fibroma [5]. Benign neoplasm of mesenchymal origin recorded more than 20% of the skin tumours in cattle [1]. Lesions were typically solitary, well-circumscribed, dome shaped or pedunculated and dermal or subcutaneous in location. They might be firm or soft and may achieve a size of 50 cm diameter. Larger lesions may be alopecic, hyperpigmented and ulcerated [2]. High frequency of neoplasm was recorded in females 56.5% than males 43.5% [3]. Histologically, the fibroblasts produce mature collagen characterized by a wavy, irregular pattern of collagen [4].

History

Two Jafarabadi buffaloes belongs to 9-10 years of age were presented with the history of having large size, non-painful growth at the brisket region since last 4 months; ulcerative wound was present in both buffaloes at the ventral part of the tumour's growth. Animal was facing difficulties in walking and sitting down as tumour interfered with frictional injuries to both forelimbs.

Fig 1: Brisket tumor in Jafrabadi buffalo

Fig 2: Huge pendulous tumor touches to ground while walking in Jafrabadi bufallo

Clinical signs

Clinical observation revealed the largesize mass at the brisket region.Brisket tumour interferes walking and seating down because of huge mass. On palpation revealed hot, non – painful tumorous mass at the brisket regions. Non responded chronic ulcer was present in both cases at ventral aspect of the tumour.

Diagnosis

Physical examination revealed abnormal hard mass at brisket region, needle aspiration had blood-tinged needle tip only, while ventral part had ulcerative wound in both animals, which was not responded to medicinal management. Clinical symptoms and physical examination revealed fibrosis of brisket.

Surgical Procedure:

Both animalswere kept off-feed for 48hr before surgery and surgery was carried out under xylazine sedation @ 0.02 mg/kg i/v along with 2% lignocaine hydrochloride infiltration around surgical site. Both animals were restrained in right lateral recumbency with cranial stretching of both forelimbs. Anti septic lotion was painted around the stump and base of tumour.Tumour mass was incised with the help of BP blade and plenty of big size blood vessels were ligated parallel to prevent heavy blood loss; many times, heavy blood loss induced severe hypovolaemic shock and death.Skin was sutured by horizontal mattress sutures using nylon sutures.Minimum fluid therapy only 1 litter of RL was administered during heavy blood loss surgery to avoid further dilution of hypovolaemic blood.

Fig 3: 9.5 kg tumour growth removed surgically

Post operatively medicinal management was carried out by using Inj. Dicrysticine S @ 20,000 IU/kg i/m and Inj. Meloxicam @ 0.5mg/kg i/m for 7 days along with daily antiseptic dressing for 10 post operative days with the help of liquid 5% povidone iodine.

Result and discussion

Surgical removal of huge size brisket tumour required on an average 3-4 hrs surgical intervention and plenty of large and small blood vessels were incised during surgery, which leads blood loss during surgery. On the 12thpost operative day suture was removed. No any post operative complication was noticed after 6 months. Histopathological finding of excised mass revealed it was a case of fibroma. The fibroma was about 9.5 kg weight. Microscopically it was composed of fibrous connective tissue cells. Interlacing bundles of collagen and spindle-shaped, angulated or stellate fibroblasts were seen. The polymorphism of fibroblasts was pronounced. Nuclei of fibroblasts were polymorphous, hypechromatic.

Fig 4: Case-1 after recovery

Fig 5: Case-2 after recovery

Conclusion

Fibroma occurs anywhere and the most common site is subcutaneous tissue of head, neck, shoulder and leg.Repeated trauma, hard flooring mainly responsible for fibroma and ulcer in mass. That's why animal kept on natural floor and padding that reduce cause of trauma and injury which lead to reduce chance of occurrence of tumour. Hypovolemic shock is usual outcome of this kind of surgery even too extra fluid therapy was avoided intentionally to prevent diluted watery blood situation, which drastically reduced oxygen caring capacity and induced hypoxia leads to death.

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