SURGICAL MANAGEMENT OF EVISCERATION UNDER XYLAZINE-KETAMINE ANAESTHESIA IN AN INDIAN GUAR (Bos gaurus)

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A twelve year old guar was presented with the history of protrusion of abdominal viscera through left caudal ventral abdomen. The animal was premedicated with xylazine at @ 0.1 mg/kg body weight and anaesthetized with ketamine hydrochloride @ 2.5mg/kg body weight by blow gun method. The area was prepared aseptically and the wound was extended to explore the mass and examined thoroughly for viability and contamination. Devitilized omentum was resected and copiously lavaged with normal saline and metronidazole to remove foreign materials and contamination. The protruded omentum was repositioned into the abdominal cavity. Following correction the peritoneum and abdominal wall were closed with simple continuous and overlapping pattern respectively using PGA. Skin sutures were removed on 12th post surgical day and the animal showed uneventful recovery.

Key words: Evisceration, Indian Bison, anaesthesia using xylazine-ketamine.

The Gaur or Indian Bison is a large endangered herbivore belongs to the Bovinae subfamily. It looks like water buffalo, which is the heaviest, (1000 - 1500 kgs) most powerful and aggressive amongst the wild cattle (Smith, 2009). They are poor subject for general anaesthesia due to ventilation perfusion mismatch and heavy four quarters may favor radial nerve paralysis (Caulkett et al, 2000). Protrusion of abdominal viscera through a defect created by congenital anomaly or trauma or gore injury or wound dehiscences or penetrating foreign bodies has been commonly noticed in wild animals. The present case reports the successful surgical management of evisceration of omentum under xylazine -ketamine anaesthesia in an Indian Bison (bull).

A twelve year old bull weighing around 1300 kg was referred from Aringar Anna Zoological Park, Vandalur, with the history of protrusion of abdominal viscera through left caudal ventral abdomen below the flank due to gore injury (Fig. 1) and the animal was separated to another enclosure. Clinical examination revealed that the animal was apparently healthy and necrosis, ulceration and bleeding were noticed. Immediate surgical intervention was carried out.

The animal was premedicated with xylazine at @ 0.1 mg/kg body weight intramuscularly using blow pipe, thirty minutes later it attained sternal recumbency but was responded for the external stimuli. It was anaesthetized with ketamine hydrochloride @ 2.5mg/kg body weight by blow pipe method. Ten minutes later the animal moved with drooped head and pressing it’s head on a tree and attained sternal recumbency followed by right lateral recumbency. The fore and hindlimbs were
secured using ropes and a tire was placed under the shoulder region to prevent radial nerve paralysis. Temperature was normal while heart rate and respiratory rates were elevated. Pre-operatively ten grams of streptopenicillin, intramuscularly and meloxicam 0.5 mg/kg, intravenously were administered. Skin surrounding the eviscerated mass was prepared aseptically and the wound was extended to explore the mass and examined thoroughly for viability and contamination. Devitalized omentum was resected and copiously lavaged with normal saline and metronidazole to remove foreign materials and contamination. Bleeding was controlled by ligating the blood vessels. Omentum was repositioned into the abdominal cavity and wound edges were debrided and the peritoneum was closed using No. 1 PGA in simple continuous pattern. Abdominal muscles were apposed using No. 2 PGA in overlapping pattern. The skin was closed using braided silk in vertical mattress pattern. Post-operative ten grams of streptopenicillin intramuscularly for six days was administered. Skin sutures were removed on 12th post surgical day.

The decision of closing the abdominal wall and superficial tissue depends on the amount and location of tissue damage and wound contamination. Primary repair should be appropriate for those animals with acute evisceration with little tissue damage or contamination. Animal with minimal intraperitoneal but significant superficial tissue damage or contamination should have routine abdominal wall closure. Present case was fresh with minimal tissue damage and contamination, so routine abdominal wall closure was carried out. Deep severely contaminated wounds should best managed by open peritoneal drainage techniques (Woolfson, 1986). Extensive muscle tears required mesh. In the present case prognosis was good because the site was at paramedian and the muscle tear was in oblique direction, presence of rumen and muscle fibers direction might prevent the further evisceration visceral organs.

The present incident was happened during the time of breeding season, so in a herd only one dominant male should be included and recessive should be segregated during breeding season. In the present case the dominant male get aged and was attacked by another male, suggesting aged male should be segregated during breeding season. Wild animal presented with evisceration should required immediate segregation (in a bushy area), followed by immediate surgical intervention.

REFERENCES


Fig.1: Eviscerated mass in an Indian guaz (Bos gaures)