Velvet fracture in Hog Deer (*Axis porcinus*)

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Most deer species have a pair of large and complex horn-like appendages, present only in males as true horns, called antlers. Each antler originates from an attachment point on the skull called a pedicle. In the initial stage, when the antler is growing, it is totally covered by a highly vascular skin structure termed as velvet. This outer cover supplies essential oxygen and nutrients to the antler. The antler becomes devoid of velvet cover, once it is matured / attained proper size. This matured antler without vascular structure is a dead bone structure which usually falls off after every mating season.

Prior to maturation, the velvet is highly vulnerable to injury due to fighting among inmates, leading to surgical management. This becomes common in zoological parks due to confinement of deers within enclosures, unlike free-range. This kind of surgical condition affecting the growing antler in a hog deer is very rarely reported in spite of common occurrence. The present report is about the surgical management of fractured and lacerated velvet in a hog deer (*Axis porcinus*).

Case History

A male hog deer aged about 2 years with body weight of 38 kg showed traumatic injury of the velvet, causing profuse serosanguinous discharge..

Clinical Examination

For carrying out a detailed clinical examination the animal was immobilized using Ketamine hydrochloride (5mg/kg) and Xylazine hydrochloride (2 mg/kg). Detailed examination revealed that the left velvet of growing antler had a fracture of about 2 cm from the top and the area was infested with maggots. Maggots were removed manually and turpentine gauze was applied. Blood sample was collected for routine clinical examination.

On close examination it was revealed that the fractured velvet was partially necrosed and hence it was decided to remove the fractured, necrosed part of the velvet.

Surgical Management

The animal was transferred to the sterile area. The site was prepared for aspectic surgery. Cornual nerve block was given using 2 ml of 2% lignocaine hydrochloride. The necrosed area of the velvet was removed by using a hand held hacksaw blade. After removal sterile gauze soaked in povidone iodine was bandaged around the site. The whole operative procedure was completed in 20 minutes. Inj.Yohimbine hydrochloride @ 1 mg/kg was given intravenously to reverse the anesthetic effect of Xylazine hydrochloride. After 30 minutes of sedation, the animal showed uneventful recovery with no side effects.

Postoperative Management

The animal was given injection Streptopenicillin 1 gm daily for 3 days and injection B-Complex with liver extract 1 ml intra muscularly on alternate days using blow pipe. The povidone iodine gauze bandage was removed on the 7th day post surgery. Topical application of hexachloro cyclohexane over the surgical wound was carried out for quick healing. The wound completely healed in 10 days.

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