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Surgical Management of Ruminal Impaction in Goat

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Introduction

Foreign-body impaction has been reported in bovine (Abu-Seida and Al-Abbadi, 2014) and ovine populations, particularly in developing countries where waste-recycling infrastructure is inadequate. Ingestion of indigestible materials disrupts ruminal fermentation and mixing of ingesta, thereby precipitating indigestion. These foreign objects may obstruct the reticulo-omasal orifice and if not removed surgically, can result in fatal outcomes. Because such materials cannot be digested or eliminated via faeces, they accumulate within the fore stomach. Notably, in many instances of foreign-body impaction, haematological and biochemical parameters reveal minimal or no significant abnormalities (Raoofi *et al*., 2011). When plastic, resins, leather and cloth accumulate in the rumen, the condition is referred to as non-penetrating foreign-body syndrome (Raidurg, 2010). In cases of ruminal impaction leading to bloat, exploratory rumenotomy is indicated (O'Connor, 1985).

Case details

A 6-year-old Goat presented at Department of Veterinary Surgery and Radiology, College of Veterinary Science and Animal Husbandry, Kamdhenu University, Anand with complaint of 4 months of pregnancy and anorexia since last 5 days. The history revealed the goat has tendency to chews inanimate materials. The clinical examination revealed weakness, increased rectal temperature 104.8^{O}F, dehydration, congested eye mucous membrane and distended abdomen. On the palpation hard mass was palpated at lower abdomen. The radiographic examination was carried out for confirmatory diagnosis. The left lateral radiograph of abdomen revealed the no any presence of fetus but huge large sized radiopaque foreign materials was observed in rumen. The case was diagnosed as foreign body impaction and advised owner for surgical intervention to remove the foreign materials.

Surgical Procedure

The goat was restrained in sternal recumbency (Fig.1) and surgical site was prepared aseptically. Anesthesia was achieved with inverted L blocks using 2% Lignocaine Hydrochloride. The linear skin incision was made in left paralumber fossa and subcutaneous tissue, muscles and peritoneum incised in routine manner. The rumen was exteriorized outside from the incision and incision site was packed with sterile surgical drape. The stay sutures were applied for holding of rumen and non-penetrating foreign materials evacuated from rumen (Fig.2). Around 2kg of foreign materials including leather, plastic, ropes and cloth pieces was evacuated from the rumen (Fig.3). The surgical incision was sutured as per standard surgical procedures (Fig.4). Post-operatively antibiotics and analgesics were administered to prevent the infection and pain management.

Fig. 1 Goat restrained in sternal recumbency

Fig. 2 Removal of foreign body from rumen

Fig. 3 Non penetrating foreign body

Fig. 4 Closure of Rumen

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