

Surgical Management of Reticular Abscess in a Buffalo under Field condition

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Abstract

A buffalo was presented with history of inappetence and recurrent tympany since last ten days. On basis of clinical signs and symptoms, left flank laparorumenotomy was undertaken under paravertebral block. On exploration, reticular abscess was found at cranio dorsal aspect of reticulum which was drained and flushed into reticulum by a stab incision made from inside through the reticular wall.

Keywords: Abscess; buffalo; reticular

Introduction

Diseases of digestive tract in ruminants constitute a major part of clinical problems. Sometimes these diseases remain undiagnosed and contribute to major cause of economic loss to farmers. It often becomes difficult to differentiate whether the condition requires therapeutic or surgical treatment or both. Diaphragmatic hernia (DH), traumatic reticuloperitonitis, vagal indigestion, omasal impaction, abomasal impaction and reticular abscesses are more commonly encountered abdominal disorders (Singh *et al.*, 1993).

Clinical Signs and Symptoms

An adult buffalo was presented with history of inappetence, poor body condition, less water intake, normal faeces, open mouth breathing, slight coughing, rough skin and recurrent tympany since last ten days (Fig. 1). On the day of presentation, buffalo was having open mouth breathing and severe tympany. On basis of clinical signs and symptoms, left flank exploratory laparo-rumenotomy was performed under para-vertebral block to diagnose and treat the cause.

Treatment

The animal was prepared for surgery in routine manner. Exploratory left flank laparo-rumenotomy was undertaken under para vertebral block. In routine procedure, first skin was incised and then fascia, muscles and peritoneum were incised. On opening of rumen, gas escaped out and ruminal contents were solid in consistency. After evacuation

of one third of solid ruminal contents, a large approx cricket ball size fluctuating swelling was palpated on left cranio-dorsal aspect of reticulum. Diagnosis was confirmed by aspiration of contents of swelling using a 2.5 inch long and 16 gauge needle with a plastic syringe. Reticular abscess was drained and flushed into reticulum by a stab incision made from inside through reticular wall during left flank rumenotomy (Fig. 2). Thick fibrous material or flakes were removed from cavity of reticular abscess (Fig. 3 and 4). In our case, no foreign body was recovered from reticulum and cavity of reticular abscess. The reticulum was partially adhered on left cranial dorsal aspect with the diaphragm. After surgery, probiotic boluses were placed inside the rumen. The rumen was closed using chromic catgut no. 3 suture material in lambert and cushing pattern. After closing the rumen, the peritoneal cavity was flushed with Metronidazole solution to minimize the infection. Then muscle and subcutaneous tissue were sutured in lockstitch manner using chromic catgut.no.3 suture material. Skin was closed using silk no. 3 in horizontal manner (Fig. 5). Post-operatively, the animal was treated with Intacef Tazo^a (Ceftriaxone) 4.5 gm, Melonex^a (Meloxicam) 20 ml, Metronidazole 800 ml intravenous, Intalyte^a (20% Dextrose and Electrolyte) 1.5 litres for five days and Tribivet^a (Vitamin B₁, B₆ and B₁₂) 10 ml for seven days. The buffalo showed normal watering, urination and defecation after surgical procedure. Antiseptic dressing was continued till healing of surgical wound (Fig. 6). Skin sutures were removed on 14th post-operative days after complete healing of surgical wound. Animal was kept on five kilograms of green fodder for seven days there after dry fodder was mixed in green fodder for subsequent days. After fifteen days, animal recovered fully and diet was also taken *ad lib* by the animal. The buffalo recovered uneventfully.

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Fig. 1: Tympany with fully distended abdomen



Fig. 2: Reticular abscess contents drained out



Fig. 3: Thick contents of reticular abscess



Fig. 4: Fibrin flakes removed from cavity of reticular abscess



Fig. 5: Skin closure in horizontal fashion



Fig. 6: Wound healing after fourteenth day post-operatively

Discussion

In our case, no foreign body was recovered from cavity of reticular abscess and from reticulum. Such type of abscess without involvement of foreign body is questionable that from where infection has migrated and resulted in formation of abscess. It has been postulated that there are certain opportunistic microorganisms that become pathogenic with the lowering of body defence mechanism. Most probably through hematogenous route infection can localize near the liver. In buffaloes, such types of reticular abscess without presence of foreign bodies have been reported by Singh *et al.* (2007). Saini *et al.* (2007) managed reticular abscess surgically by giving an incision in reticular wall and draining the abscess into the reticulum. The present case recovered uneventfully after fourteenth post-operative day.

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