

Abscess on Right Thoracic Wall Due to Traumatic Reticulitis in a Buffalo

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Abstract

3 year old heifer was presented to the clinic with repeated fever, anorexia and emaciation. Examination of buffalo revealed fever, tachycardia, tachypnea, ruminal atony with bloat and hot, pain full abscess on right thoracic wall. Haematology revealed erythrocytopenia, leucocytosis with more number of band cells. Buffalo was treated with inj. strepto penicillin along with supportive therapy and external application of iodex ointment over the abscess. After completion of five days of therapy abscess was ruptured and pus was oozed out. While draining the pus three inches iron long needle was came out from the abscess. Improvement was noticed after completion of therapy.

Keywords: Abscess on right thoracic wall, traumatic reticulitis, buffalo, needle

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INTRODUCTION

Traumatic affections of the bovine fore stomach such as sharp foreign body syndromes (SFBS) due to ingestion of sharp foreign bodies are still a matter of concern in different veterinary practices all over the world. Both animal and human factors are contributing to development of SFBS. Mode of animal prehension and indiscriminate feeding habits, bad nutritional management, heavy industrialization and human habitations are major predisposing factors for the occurrence of SFBS [1]. The signs of TRP are dependent upon the site of reticular perforation and lesions caused by the foreign body in the surrounding areas [2]. Many reports on SFBS in cattle were available but reports in buffalo were very little. Present paper describes the rare clinical condition of traumatic reticulitis induced abscess on right thoracic wall in a buffalo.

CASE HISTORY AND OBSERVATIONS

A three year old heifer was referred to the Teaching Veterinary Clinical Complex, College of Veterinary Science at Proddatur with a history of fever, anorexia, bilateral ocular discharges, and progressive weight loss with difficulty in walking. Anamnesis revealed

that buffalo was regularly allowed for open grazing at waste dumping area. Physical and clinical examination of the buffalo revealed fever (104.2°F), tachycardia (78/min), tachypnea (32/min) with congested congenital mucus membranes. Ruminal atony associated with bloat was noticed. Auscultation of heart did not reveal any abnormalities. Hot and pain full abscess was noticed on right thoracic wall (Figure 1). Peripheral blood smear was collected for screening of haemoprotozoas and whole blood was collected in EDTA containing vial for estimation of packed cell volume (PCV), total leucocyte count (TLC), total erythrocyte count (TEC), and haemoglobin (Hb) and differential count (DLC) [3–4].



Fig. 1: Buffalo Showing the Abscess at Right Thoracic Wall.



Fig. 2: Ruptured Abscess.



Fig. 3: Recovered Needle (After Straightened) from the Abscess.

RESULTS

Peripheral blood examination and stained smears did not reveal any haemoprotozoans. There was erythrocytopenia ($5.8 \times 10^6/\mu\text{L}$) with lower haemoglobin (8.3 g/dL) concentrations and normal PCV (31%), leucocytosis ($13,570/\mu\text{L}$), neutrophilia ($10,314/\mu\text{L}$), presence of more number of immature neutrophils (band cells) ($6,188/\mu\text{L}$) than compared with mature neutrophils ($4,126/\mu\text{L}$) and decreased lymphocyte count ($2,850/\mu\text{L}$). Normal monocyte count ($135/\mu\text{L}$), eosinophil count ($271/\mu\text{L}$) was noticed.

On the day of presentation, buffalo was treated with injections of strepto penicillin @15,000 IU/kg body weight I/M, inj.neoprofen (Ketoprofen) @ 2 mg/kg body weight IM, inj. chlorphenamine maleate (Avilin vet) @ 0.5 mg/kg body weight IM, and multivitamins (Inj. tribivet @ 8 ml per day). External application of iodex over the abscess was advised. Above therapy was advised to be continued for seven days at the animal shed

itself. Advice was given to the owner that the buffalo should not be allowed for excessive walking for feed purpose for two more weeks and advised continuous hand feeding. After completion of five days of therapy the abscess was ruptured and pus was oozed out from the edematous lesion at right thoracic wall (Figure 2). While draining the pus three inches iron long needle (Figure 3) came out from the abscess. Above therapy was continued for five more days. Additionally Ecotas boli (Probiotics) one BID PO was advised for one more week. Recovery from the swelling and improvement in appetite was observed after completion of therapy.

DISCUSSION

The recorded lowered RBCs and hemoglobin indicates anemia, which could be attributed to the loss of blood during penetration of the reticulum [5]. Reduced haemoglobin and TEC was recorded previously by Reddy *et al.* [6]. Significant leukocytosis with neutrophilia was noted in this case, it mainly because of inflammatory responses due to infection associated with the penetration of the reticulum and diaphragm [7]. Elevation in the TLC and neurophilia observed in this case was in accordance with the previous studies [1, 3].

Traumatic reticulo peritonitis (TRP) results from bovine eating metal and occasionally other sharp objects, which go on to penetrate the reticulum, causing infection and injury in the abdomen and other organs. The reticulum is the first part of the cow's stomach, situated on the left side just behind the heart. Many heavy objects eaten by the cow will lodge in the reticulum. Cows are poor at identifying metal in their mouths and swallow without much chewing. Metal and other sharp pieces of the right size get stuck in the reticulum. The reticulum contract in part of the cudging process and this pushes these pieces (typically wires) through the reticular wall into the abdomen. Infection is introduced at the same time causing peritonitis. The wire(s) can migrate back and forth to the reticulum or into liver, spleen, the chest cavity or the heart. A number of these may simply cause a brief peritonitis and then apparently make reasonable recoveries and the adhesions are only noted in the abattoir when the animal is slaughtered [6]. In most bovines the initial

signs are an immediate sharp milk drop, usually to less than half the normal yield. Most have a mildly raised temperature and absent or very reduced rumen movements. They can have a slight bloat and a stiff gait. Buffaloes with brisket oedema should be differentiated with the other possible etiological agents [8]. Most of these signs will improve over a couple of days after treatment. Some cows can make a complete recovery even without treatment, but a significant number will go on to have a grumbling peritonitis with abscesses, poor milk yield and loss of condition. Some will develop infections which are fatal. This can be rapid when the wire passes into the heart itself.

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