THE SCIENCE WORLD
A Monthly e Magazine
ISSN:2583-2212
Jan 2024 Vol.4(1), 409-411

Popular Article

Necropsy Procedures and its Interpretations Postmortem report of traumatic pericarditis in buffalo

Archana Choudhary,*[1] Pradeep Hiremani[2] and Shivali Khandelwal, [3]Satish[4]
Department of Veterinary Clinic Complex , Arawali Veterinary College,Sikar 332403,Rajasthan India[1]
PG Scholar, Department of Veterinary Pathology Veterinary College Bidar Karnataka 585401 India[2]
PhD Scholar, Division of Veterinary Microbiology, ICAR-IVRI, Izatnagar, U.P. 243122 India[3]
Department of Veterinary Gynaecology and Obstetrics , Arawali Veterinary College,Sikar 332403,Rajasthan India[4]
https://doi.org/10.5281/zenodo.10576291

Introduction

Traumatic reticuloperitonitis (TRP) or hardware disease is one of the common diseases reported in adult cattle and buffalo and is caused by the ingestion of foreign bodies that perforate their foregut. Cattle and buffalo have unique mouth anatomy and due to their long prehensile tongue, they grasp feed without any selection of the feed items. Due to their unselective feeding habit, foreign bodies, metallic or non-metallic, mixed with the feed often make entry into their stomach. The risk and sequelae of TRP syndrome are considerably higher in buffalo than in cattle and extremely common within developing countries, possibly due to less organized small-scale farming and the low standards of animal management and feeding regimes (Misk *et al*. 2001). As stomach of these animals is also a complex organ divided into 4 chambers, the main chambers commonly involved in the TRP are rumen and reticulum. The potential foreign bodies are of variable types and usually of ferromagnetic nature (Jagos 1969, Ryzhakov and Lazarev 2008, Warislohner 2017), citing the potential role magnets can play in localizing the foreign bodies. The foreign body may affect organs like liver, spleen, heart or lungs and sometimes the nerves leading to the clinical conditions like vagal indigestion (Braun *et al.* 2020). Initially, TRP would be diagnosed primarily after the slaughter/ upon post-mortem but recent advances in diagnostic imaging techniques especially the radiography and ultrasonography has made it possible to diagnose the condition at an earliest (Braun *et al.* 2020).

Fig 1 Buffalo at Postmortem site

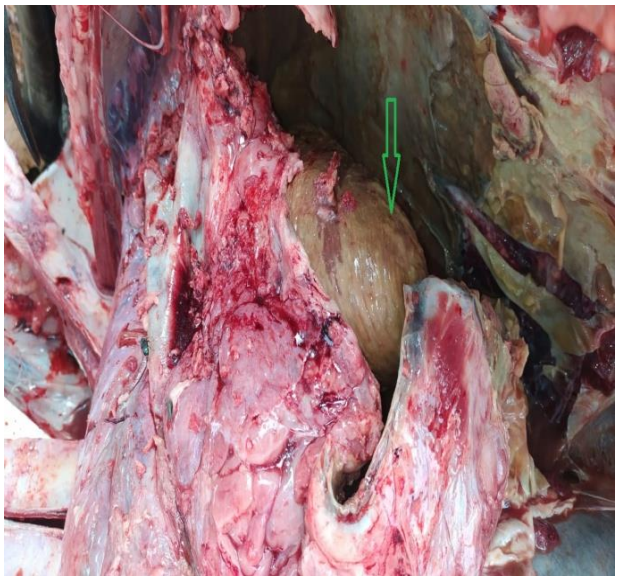

Fig 2 Open pericardial sac of a cow with traumatic pericarditis, showing the heart covered with fibrin.

Fig 3 Yellowish peritoneal layer of rumen

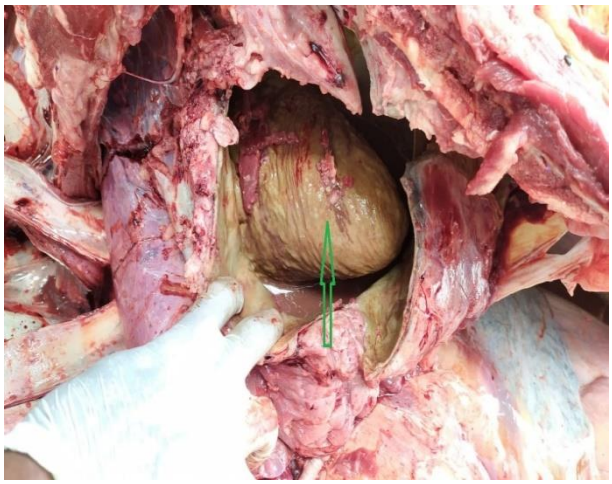

Fig 4 Heart covered with yellow fibrin

Fig 5 Foreign Body (Sharp iron wires)

Fig 6 Suppurative pericarditis with abscessation

Official Website
www.thescienceworld.net
thescienceworldmagazine@gmail.com

Published 26.01.2024

Case history

A five years old non pregnant Murrah buffalo was presented at Arawali Veterinary College Sikar with the history of anorexia, dullness, depression, arched back, swollen brisket region in past 7 days. Clinical examination revealed severe dehydration, distended jugular vein, edematous swelling in brisket and sub-mandibular region rectal temperature was found high with muffled heart sound. Animal treated last five days but no improvement in recovery at last sixth day night suddenly collapsed then decide postmortem examination of buffalo done

Post-mortem observations:

The most important complications of TRP were observed

1. Traumatic pericarditis,
2. Hepatic inflammation and abscesses,
3. Splenic inflammation and abscesses,
4. Pleuropneumonia,
5. Generalised peritonitis.
6. There also have been reports of cardiac tamponade following foreign body induced perforation of a coronary artery fatal reticular haemorrhage after puncture of the reticular vein by a foreign body thrombosis of the cranial venacava and aortic thromboembolism.

Conclusion

TRP is a common ailment in buffalo with higher incidence. It has huge economic impact on farmer's economy. The disease has diverse symptoms but is more convincing in diagnosis of the condition. The condition is better diagnosed in early stages when it has good prognosis. Earlier disease was diagnosed after post mortem or slaughter but now-a-days TRP can be diagnosed through clinical symptoms, haematobiochemical tests and through ancillary diagnostic imaging tests. Its treatment can be initiated through conservative means and if failed invasive surgical procedures may be ensued. The condition if diagnosed and treated early has good prognosis that reduces as the time gap increases.

References

Braun U, Gerspach C, Ohlerthb S, Warislohnera S and Nuss K.2020. Aetiology, diagnosis, treatment and outcome of traumatic reticuloperitonitis in cattle. *Veterinary Journal* **255**: 105424.

Jagos P. 1969. The characteristics of foreign bodies in traumaticinflammations of cattle. *Acta Veterinaria Brno* **38**: 545–52.

Misk N, Semieka M and Ali S. 2001. Varieties and sequellae of ingested foreign bodies in buffalo and cattle. *Assiut Veterinary Medical Journal* **46**: 250–73.

Ryzhakov A V and Lazarev A V. 2008. Feed trauma of cattle under commercial production conditions. *Kormoproizvodstvo* **12**: 29.

Warislohner S. 2017. 'Reticuloperitonitis traumatica beim Rindeine Analyse von 503 Krankengeschichten'. Dr Med Vet Thesis. University of Zurich, Switzerland

Official Website
www.thescienceworld.net
thescienceworldmagazine@gmail.com
Published 26.01.2024