

Role of Radiological examination in diagnosis of Foreign body in bovines

K.S. Chaudhari*, M.G. Thorat, G.U. Yadav, J.B. Mulani, A.A. Suryawanshi and S.S. Ingale

Department of Surgery and Radiology,
College of Veterinary and Animal Sciences, Udgir, Dist. Latur – 413 517 (M.S.)

* Corresponding author email: kscvet@gmail.com

Abstract

Radiographs of 338 clinical cases of cattle and buffalo reported to Teaching Veterinary Clinical Services Complex, Veterinary College, Udgir (M.S.) were studied for recording the incidences of various affections in bovine. All these cases were having the history of tympani (acute/chronic/recurrent). All animals were subjected to lateral plane radiography of reticulo-thoracic region. Out of these cases 27.81% of the cases were interpreted as a foreign body syndrome, of which 21.59% were potential and 6.21% were non-potential foreign bodies. 4.44% of cases showed presence of foreign body in the thoracic region. The incidence of diaphragmatic hernia was recorded in 6.50% of the animals. Further, lung abscess was recorded in 2.94% of the cases.

Keywords: Radiology, Diagnosis, Bovine, Foreign body syndrome.

Introduction

Traumatic reticulo-peritonitis and diaphragmatic hernia are the known serious sequelae of digestive disturbance and recurrent tympani in bovines. Further, traumatic pericarditis and lung abscess are results of penetration of pericardium and lung by a sharp penetrating foreign body respectively. In chronic cases, it becomes very difficult to differentiate between these conditions. Hence, on the basis of lateral plane radiography of reticulo-thoracic region it would possible so as to make differential diagnosis of these affections.

Materials and Methods

338 clinical cases of cattle and buffalo presented to TVCSC, COVAS, Udgir, with the history of digestive disturbance and tympani (acute/ chronic/ recurrent) were studied. All the animals were subjected to lateral right- left radiographical examination of reticulo-thoracic region and the results were recorded.

Results and discussion

27.81% of the animals showed presence of foreign bodies in the lateral plane radiograph of reticulo-thoracic region. Among these, 21.59% were potential foreign bodies (metallic wire, sewing needle and pins) and 6.21% were non-potential foreign bodies (nut-bolts, keys, chains, plastic sheets, leather pieces and ropes). Beth and David (1990) studied 115 cases of bovine suspected for traumatic reticuloperitonitis and traumatic pericarditis and recorded 83% sensitivity and specificity of cranial abdominal radiograph for diagnosis of traumatic reticuloperitonitis. Chaudhary et al (2004) surveyed 308 cases with plane radiograph of reticular

area and recorded radio-opaque foreign bodies in 179 animals, non-potential foreign bodies in 77 animals.

Incidence of diaphragmatic hernia was found to be 6.50%. Further, 4.44% of radiographs showed penetrating metallic objects in thoracic region without herniation, whereas, lung abscesses were recorded in 2.94 % of the cases. Misk and Semieka (2001) recorded diaphragmatic hernia in 44 cases (40 buffalo and 4 cattle) out of 69 animals. Further, they reported radio-opaque foreign bodies of variable shape and size within the herniated part of reticulum.

29.29 % of the cases showed radiographic evidence of pericarditis. Among these, there was no radiographic evidence of foreign bodies in 24.85% cases. Beth and David (1990) radiographed 115 cases of bovine suspected for traumatic reticuloperitonitis and traumatic pericarditis and recorded 90% sensitivity and specificity of radiography in detecting traumatic pericarditis in 115 bovine. Misk and Semieka (2001) evaluated radiographs of 25 cases of traumatic pericarditis and recorded poor differentiation of thoracic contents.

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