

Submitted : 00-00-2017

Accepted : 00-00-2017

Published : 15-11-2017

Pulmonary Contusion in a Free Ranging Sloth Bear (*Melursus ursinus*)- A Case Report

Ranjeet Harne, Amol Rokde, Jhanvi Chitariya, Nidhi Rajput and A.B. Shrivastav

School of Wildlife Forensic and Health,

Nanaji Deshmukh Veterinary Science University, Jabalpur, Madhya Pradesh.

Corresponding Author: drranjeetharne@gmail.com

This work is licensed under the Creative Commons Attribution International License (<http://creativecommons.org/licenses/by/4.0/P>), which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

Copyright ©: 2017 by authors and SVSBT.

The sloth bear (*melursus ursinus*) belongs to family Ursidae and it is endemic to Indian subcontinent. Sloth bear is completely protected under schedule I of the Indian Wildlife (Protection) Act, 1972 and listed as vulnerable species in the World Conservation Union's Red List of Threatened Animals and also listed under Appendix I of CITES (Garshelis *et al.*, 1999).

Severe blow on chest by blunt object and leakage of blood from capillaries caused accumulation of blood in lung parenchyma, resulted into a condition known as Pulmonary contusion. The accumulation in the lung tissue interferes with efficiency of alveoli and bronchioles for gas exchange, potentially leading to inadequate oxygen levels (hypoxia) and death. A rare case of a pulmonary contusion has been noticed during routine post-mortem examination at School of Wildlife Forensic and Health, Jabalpur, (M.P.)

Case History and Necropsy Examination

A carcass of male sloth bear was brought to the School of Wildlife Forensic and Health, Jabalpur, Madhya Pradesh. The animal was rescued from a *kachha* well. Detailed post-mortem examination revealed congestion and haemorrhages in both the eyes and subcutaneous haemorrhages in the throat and inner aspect of right shoulder regions. Approximately 500 ml Blood tinged fluid was



Figure1: Congested mucosa and tracheal lumen Filled with blood tinged frothy fluid



Figure 2: Pulmonary Contusion

present in the thoracic cavity. Tracheal mucosa was congested and the lumen filled with blood tinged frothy fluid exudates (Fig.1). Lungs showed large areas of emphysema, congestion and parenchyma was filled with blood tinged frothy fluid (Fig.2). Areas of haemorrhages were also observed over myocardium. Pre-scapular lymph nodes were enlarged, oedematous and haemorrhagic. Most of the vital organs showed presence of haemorrhages and congestion. However, marked pulmonary changes were suggestive of death due to respiratory failure. Though the well partly filled with water but having an open end tube well pipe, it is presumed that the animal might have falling on the open end of tube well pipe and received injuries in neck region which might have aspirated water and resulted into failure of respiratory system. Traumatic injury can result in acute death due to overwhelming primary damage, initial survival, and subsequent death due to complications(delayed haemorrhage, multiorgan dysfunction, infection, or sepsis), or patient survival to discharge (Baker *et al.*, 1980).

References:

Garshelis, D.L., Joshi, A.R., Smith, J.L. and Rice, C.G. (1999): Sloth bear conservation action plan. Bears: status survey and conservation action plan: 309.

Baker, C. C., Oppenheimer, L., Stephens, B., Lewis, F. R., and Trunkey, D. D. (1980). Epidemiology of trauma deaths. *The American Journal of Surgery*, **140**(1), 144-150.

