PNEUMONIA IN A CAPTIVE LION *(PANTHERA LEO)* - A CASE REPORT

Vijay Kumar, Pravesh Kumar, Anshu Raj and Sameer Rastogi

Dhauladhar Nature Park

Gopalpur, Distt- Kangra, Himachal Pradesh, 176059.

Received 8-6-2011 Accepted 14-8-2012

Lion *(Panthera leo)* is an endangered species and mainly thrives well in the tropical regions, males lions seldom live longer than ten years, as injuries sustained from continual fighting with rival males greatly reduce their longevity (Grisham, 2001a). Fast decline in the population of the Asiatic lion *(Panthera leo)* across the continent has been noticed in the last century. Lions especially in the captivity are vulnerable to various diseases like Canine Distemper virus (CDV), Feline Immunodeficiency Virus (FIV), and Feline Infectious Peritonitis (Grisham, 2001b). Several lions died from pneumonia and encephalitis (Roelke, 1996). This species is mainly found in the tropical zone.

CASE HISTORY AND CLINICAL OBSERVATION

A female lion aged 17 years old and weighing about 126 kg was found dead in a semi-open enclosure in the captivity at the Dhauladhar Nature Park Gopalpur in the month of December. Animal was routinely fed with chicken @ 7 kg/day for four days and chevon @ 3kg for two days and fasting of one day in a week. Other clinical signs of illness were not observed clearly. The animal was found dead in the open enclosure next morning. Post mortem of the dead carcass was performed immediately. Lung samples were collected in 10% buffered formalin and processed for histopathological examination. Formalin-fixed samples were paraffin-embedded, sectioned at 5 µm, and routinely stained with hematoxylin and eosin (HE).

RESULTS AND DISCUSSION

The carcass of the dead animal was with rough hair coat, emaciated and with sunken eyes. Postmortem examination revealed congestion in the trachea and bronchi along with frothy fluid

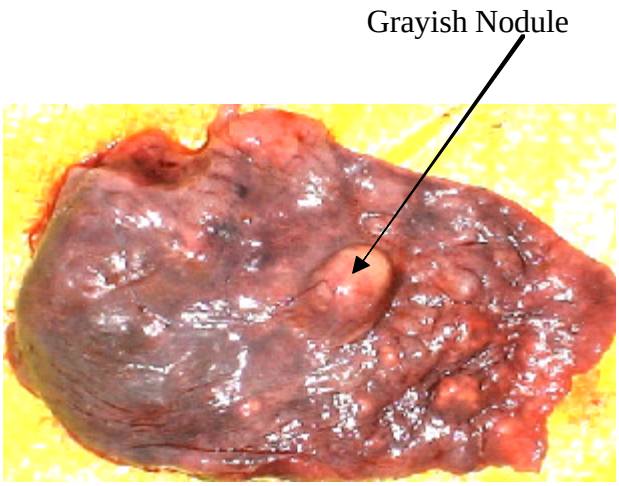

Fig.1. Lung showing grayish nodule

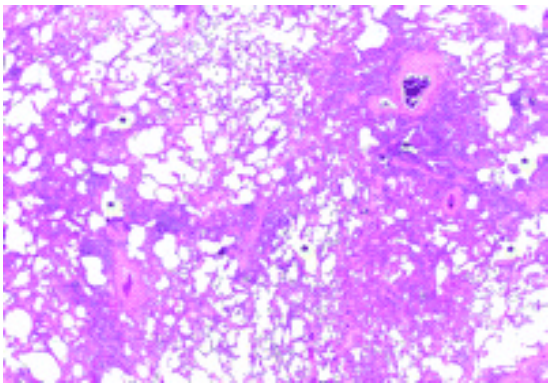

Fig.2. Histopathology of pneumonia

with fibrinous exudate in right and left pleural cavity, grayish yellow multiple elevated nodules of different sizes (about 2-3 cm in diameter) in the lobes of both the lungs were observed (Fig.1), with a purulent exudates oozing out from the cut surface.

Histopathological examination of the lung tissue revealed areas of congestion and oedematous fluid filled in some alveoli and there was infiltration with mainly polymorphonuclear and few mononuclear

leukocytes (Fig.2). Pneumonia occurs due to infectious and non-infectious agents, the lungs become inflamed and congested, reducing oxygen exchange and leading to cough and breathlessness.

The extreme climatic condition makes lion susceptible to lung infections leading to pneumonia. In the present communication the animal was found to be infected with bronchopneumonia.

Pneumonia is recognized as potential cause of death in lions and other felids, especially in the temperate areas. The extinction of lion population can be controlled by putting emphasis on the management, breeding and conservation of the lion in the captivity.

REFERENCES

Grisham, J. (2001a). Lion. Johannesburg: Macmillian South Africa Publishers Pvt Ltd. p. 231. ISBN 0-86954-122-26.

Grisham, J. (2001b). "Lion". In Catherine E. Bell. Encyclopedia of the World's Zoos. 2: G-P. Chofago: Fitzroy Dearborn. pp. 733-39. ISBN 1-57958-174-9.

Roelke, M.E. (1996). "A canine distemper epidemic in Serengeti lions (Panthera leo)". Nature **379**: 441-445.

❑