

## HEART WORM IN A LIONESSE

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*Dirofilaria immitis* is encountered in canids and felids in tropical and subtropical regions. The parasite is transmitted as microfilaria by mosquitoes. The microfilaria develops in the host tissues before migrating into the venous system. The immature worms grow over a period of two to three months, causing arteritis of the pulmonary vessels which may cause fibrosis and pulmonary hypertension. The resulting clinical signs are coughing, dyspnoea, and exercise intolerance, right-sided cardiac enlargement and failure may ensue. It is fatal always in the case of heavy infestation but many infested dogs have shown few or no signs of illness in mild infestation. The most reliable diagnostic test is the detection of larvae (*Microfilaria*) in stained blood smear.

One lioness of Birsa Biological Park, Ranchi showed symptoms of weak hind quarters, occasional convulsive seizures, dyspnoea, complete loss of appetite, exercise intolerance, gradual weight loss, harsh dry coat, dehydration and anaemia. The lioness was moved into a squeeze cage and thoroughly examined. Body temperature was recorded morning and evening and it was found to vary between 100<sup>o</sup> to 101.5<sup>o</sup>F. Heart and lungs were auscultated. Heart beat had increased, lungs could not be heard clearly due to groaning of the animal. Mucous membranes were pale, peripheral blood was examined for the presence of any parasite and was found negative for microfilaria. On analysis of blood collected from saphenous vein for blood urea nitrogen (BUN) and SGPT it was found that SGPT was 38IU. BUN was very high (126.5mg/dl) and was approximately three times higher than the normal value (10-40mg/dl). On DLC examination neutrophil was found extremely high and it was 93%. Urine culture was found positive for many colonies of non-fermenting bacilli and drug sensitivity test showed that the organism was sensitive to Amikacin (+++). Age and body weight was recorded which was approximately 17 years and 1.5 quintals respectively. The animal was very closely observed for symptoms. It was found that roaring was completely absent even at the time of roaring of others lions which is considered a most important symptom of ailment. The response to attendants' signals was very poor.

Fluid therapy, suitable antibiotic at recommended dose and

supportive therapy were given. On the fourth day of treatment the lioness started taking food but only chicken (around 2kg per day). Gradually the diet increased to beef also. During the course of treatment convulsive seizure was noticed twice. The animal could not bear her body weight on her legs despite several efforts to make her stand. The BUN level returned to almost normal level after continuing treatment for seven days but the neutrophils (%) level decreased only up to 82.

Gradually the lioness became laterally recumbent, stopped taking food and collapsed after 35 days of onset of first symptoms. On postmortem examination it was found that her heart was full of adult heart worms, especially the pulmonary artery which was completely packed with *Dirofilaria immitis*. Liver and kidney were highly inflamed with necrotic foci which is in accordance with the finding of Baily (1963). Since the animal was weak, debilitated and dehydrated chances of secondary bacterial infection was high thereby increasing the neutrophil count. The BUN might have increased due to severe stress on the kidney resulting from severe dehydration (Chakrabarti, 1994).

The reason for not detecting microfilaria in the blood smear may be due to the occult state of heart worms. The animal may have many adult heart worms but no circulating microfilaria. Another reason may be because in some cases a negative result of blood smear can not be relied upon to identify infestation.

### Acknowledgement

The authors are thankful to the District Forest Officer, Birsa Biological Park, Ranchi for inviting me to examine the ailing lioness and also for allowing to collect blood and urine samples for investigation.

### References

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Chakrabarti, A. (1999). *Text Book of Clinical Medicine*. II revised edition. Kalyani Publishers, New Delhi, 124pp.

The Lioness is one of God's majestic creatures She is mighty ferocious fierce and brave Prides herself in her features While killing the antelope she has desperately crave The Lioness is filled with love Only as she watches her cubs With the lion her beloved And protects them from the hard stubs The Lioness is not submissive She lets the lion become king for as long as she pleases Never permissive Until hell freezes The Lioness is the true queen of the pride No one dares challenge her If you do you will not slide You will only talk of blather If you hear her fearsome roar then take heed Heart worm in a lioness. February 2002. *Zoos Print Journal* 17(3).<sup>Â</sup> *Babesia bigemina* infection was diagnosed in a 14-day old Jersey female calf. The infected calf showed clinical symptoms of high fever, increased respiratory rate, pale conjunctival mucous membrane and haemoglobinuria. Blood smears were prepared and subjected for Giemsa staining method. Directed by Paul Rice. *A WORM IN THE HEART* details the lives and stories from the LGBTQ+ community across Russia. Shot in six cities along the Trans-Siberian Railway, this documentary details the current state of the Russian queer community - giving both broad societal overviews and deeply personal accounts from activists and non-activists alike. The film follows Paul Rice and Liam Jackson Montgomery, a gay couple from Each type of intended substitution results in a stylistic device (SD) called also a trope. The most frequently used, well known and elaborated among them is a metaphor - transference of names based on the associated likeness between two objects, as in the "pancake", or "ball", or "volcano" for the "sun"; "silver dust", "sequins" for "stars"; "vault", "blanket", "veil" for the "sky". From previous study you know that nomination - the process of naming reality by means of the language -