**HEPATOZOOON SP. LIKE INFECTION IN RAT SNAKE (PTYAS MUCOSUS)**

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**ABSTRACT**

Adult rat snake blood sample and blood smear were received from Aringar Anna Zoological Park, Vandalur, Chennai. The haematological examination revealed haemoglobin (5 g/dL), packed cell volume (28%) and total erythrocyte count (7.8 millions/cmm). Differential leucocyte count revealed heterophil (62%), lymphocyte (33%), monocyte (3%) and eosinophil (2%). Leishman-Giemsa stained (LG) blood smear revealed the presence of intracytoplasmic sausage shaped gametocytes in the erythrocytes was confirmed as Hepatozoon sp. like infection. The haemogregarines found in snakes usually belong to the genus Hepatozoon. Hepatozoon sp. like infection occurred in the rat snake could be due to the ingestion of the vector or due to bite of any vectors.

**Key words:** Adult rat snake, Hepatozoon sp. like infection

Parasites of the Apicomplexan family Haemogregarinidae are the most common group of intracellular haemoparasites found in reptiles (Telford, 1984). The present paper reports the occurrence of Hepatozoon sp. like infection in a rat snake.

Adult rat snake blood sample and blood smear were received from Aringar Anna Zoological Park, Vandalur, Chennai. The Leishman-Giemsa stain was prepared by dissolving 150 mg of Leishman’s powder and 30 mg of Giemsa powder in 100 ml of acetone-free methyl alcohol. The blood smear was covered with staining solution for one min to fix the smear. Then, added double the quantity of slightly alkaline distilled water pH 7.2-7.4 and allowed to stain for 20 minutes. Washed in sterile distilled water, dried and examined under oil immersion objective for parasites, anaemic changes and differential leucocyte count. The haematological examination revealed haemoglobin (5 g/dL), packed cell volume (28%) and total erythrocyte count (7.8 millions/cmm). Differential leucocyte count revealed heterophil (62%), lymphocyte (33%), monocyte (3%) and eosinophil (2%). Leishman-Giemsa stained (LG) blood smear revealed the presence of intracytoplasmic sausage shaped gametocytes in the erythrocytes (Fig.1). The sausage-shaped gametocytes lack the refractile pigment granules found in the gametocytes of Plasmodium and Haemoproteus. Based on the morphology of gametocytes, it was confirmed as Hepatozoon sp. like infection. Three genera, Haemogregarina, Karyolysus and Hepatozoon contain at least 402 named species (Levine, 1988) and very few of which can be distinguished at either generic or specific levels by the forms found in the vertebrate host.

Most of the haematophagous arthropod groups have been shown to support sporogony of haemogregarines, including anopheline and culicine mosquitoes, triatomine bugs, phlebotomine sand flies, tsetse flies, mites and ixodid ticks (Telford, 1984). Haemogregarines are the most common group of sporozoan haemoparasites affecting reptiles, especially snakes (Thrall et al., 2004). Haematological examination revealed anaemic changes in that case. The haemogregarines found in snakes usually belong to the genus Hepatozoon. Hepatozoon sp. like infection occurred in the rat snake could be due to the ingestion of the vector (Wozniak and Telford, 1991) or due to bite of any vectors.
Fig. 1. Rat snake-Blood smear-Hepatozoon sp. like infection- Intracytoplasmic sausage shaped gametocyte in the erythrocyte.

REFERENCES