Volume : 2 | Issue : 1 | Jan 2013 • ISSN No 2277 - 8160

Research Paper | Zoology

Studies on Behavioral & Morphological Significance of Filariae

Patel, Umesh Prasad	Department of Zoology, Govt. M.G.M.P.G. College, Itarasi, Distt. Hoshangabad
Patel, Satanand	Department of Zoology, Govt. S.G.S.P.G. College, Sidhi (M.P.)
Patel, Dinesh Prasad	Department of Zoology, Govt. Science College, Rewa (M.P.)
Mishra, Amitabh	Department of Zoology, Govt. Science College, Rewa (M.P.)

ABSTRACT

This paper Attempts to pin point the most original morphological features of the Biology of filariae Per Se and those which are important for triggering regulatory process in the Arthropod Vector and uncontrolled Pathogenic Process in the Vertebrate host. The following stages are considered the Motile egg or Newly-Hatched larva, the Microfilaria, in the Lymphatic or Blood Vessels of its Vertebrate Host. Migratory properties through the Lymphatic system, maturation, Mating and finally egg laying in the tissue the reach. This synthesis is based on Parasite morphological features and their functional inter predation.

KEYWORDS: Morphological features, Lymphatic.

INTRODUCTION

The study of Human filariae is limited for obvious ethical reasons. the proportion of inoculated larvae that develop their route of migration, pairing of the sexes, egg laying and migration of the micro filariae, to name only a few process, remain unknown.

However, these filariae belong to a Homogeneous group, kingdom-Animalia, Phylym-Nematoda, Class-Secernenta, Subclass-Spiruria, Super Family-Filarioidea, Family-Onchocercidae from other members of which in formations can be extrapolated.

MATERIALS AND METHODS

The microfilaria morphological diversity of this stage reflects is deferent behavioral traits and niches accessible to the vectors. The larval stages in the vector, the movement of the ingested microfilariae induce important regulatory processes of Translocation through the vectors stomach wall and the final larval stages and adults in the vertebrates host. once they have escaped from the immune effectors at point of entry, they must resist liquid Fluxes. The filariae have developed unique and highly evolved biological features as compared to their parasite spirurid ancesters. the life cycle in the vector fallows a constant pattern. Migration of microfilariae through the digestive cells and through the basal Lumina. The details of many fever life cycles are known in the vertebrates host then in the 18 compared to a hundred. These species belong mainly to the onchocercinae and Dirofilariinae, their host are mammals or, rarely birds or, reptiles.

OBSERVATIONS

The disease is transmitted by mosquitoes that Bite infected Human and Pick up the microfilariae that develop in side the mosquito, in to the infective stage in a process that usually takes 7-21 days. The Larvae them migrate to the mosquitoes Biting mouth parts ready to enter the punctured skin following the mosquito Bite, thus completing the cycle as we cannot directly observe the microfilariae in their natural environment, their behaviour is almost unknown. However their are other ways of approaching this problem and filarial life cycle appears to be astonishingly complex.

DISCUSSION

The above observation indicates the important physical factors in the relation between the filariae and their two successive hosts haematophagous arthopod and terrestrail vertebrates like any other Nematode, the filaria is active thanks to its locomoter system, muscles and endo-skleton, the High osmotic pressure maintained by the excretory cell. Any drug that affects this system should be very efficient. The filaria uses this locomoter system. Either to change its location due to the necessity of mating for example or more fundamentally to avoid moving.

Filaria adopted a similar method to that of their spirurid ancestors the resulting protection is still not perfect because the circulation of fluids can drive them to organ in which they will be destroyed, such as the lung and liver, to resist this they have been forced to develop their own more subtle method of active mechanical resistance.

ACKNOWLEDGEMENT

The Authors are thankful to Dr. R.De. Roy, Dr. Archana Sharma and Dr. V.K. Krishan, Department of Zoology, Govt. M.G.M.P.G. College, Itarsi (M.P.) for their help and encouragements during this research work.

REFERENCES

"Filariasis" at Dorland's Medical dictionary. | "Lymphatic Filariasis" (2010). Center for disease control and Prevention. | Bain, O., Wanji, S., Enyong, P., Petit, G., Noireau, F., Eberhard, M.I., Wahl, G. (1998). New features on the moults and morphogenesis of the human filaria Loa loa using rodent hosts, Consequences. Parasite. 5 : 37-46. | Bandi, C., Anderson, T.J.C., Genchi, C., Blaxter, M.L. (1998). Phylogeny of Wolbachia in filarial nematodes. Proc. roy. Soc., London. 265 : 2407-2413. | Bianco, A.E., Mustapha, M.B., Ham, J.P. (1989). Fate of the development larvae of Onchocerca lienalis and O. volvulus in micropore chambers implanted into laboratory hosts. J. Helm. 63 : 218-226. | Discovery (2008). Lymphatic Filariasis. | Kotani, T, Powers, K.G. (1982). Development stages of Dirofilaria immitis in the dog. Am. J. Vet. Res. 43 : 2199-2206. | Kume, S., Itagaki, S. (1955). On the life-cycle of Dirofilaria immitis in the dog as the final host. Brit. Vet. J. 111 : 16-24. | Lichtenfels, J.R., Pilitt, P.A., Kotani, T., Powers, K.G. (1985). Morphogenesis of developmental stages of Dirofilaria immitis (Nematoda) in the dog. Proc. Helm. Soc. Wash. 52 : 98-113. | Lymphatic (2010). U.S. Centers for disease control and privation. | The Carter center (2008). How is Lymphatic Filariasis Treated? | WHO (2011). "Lymphatic Filariasis". Health Topics Atoz. |