

**Pediatric Myiasis: A Potential Pediatric Health Threat In Developing World****K V Ramana****Corresponding Author:** K V Ramana PhD, FAGE, Department of Microbiology, Prathima Institute of Medical Sciences, Karimnagar, India Mail id: ramana\_20021@rediffmail.com

Infestation of fly larvae in human is an under recognized and under reported but a serious public health problem especially to the developing and low socioeconomic nations. Not yet categorized as a parasitic infection, fly larvae have the ability to survive in human resulting in severe morbidity. Depending on the need for a host for their survival and further development on the host (human/animal), fly larval species are classified as specific, semi specific and accidental in nature. More than 90 % of fly larval infestations are attributed to accidental deposition/entry of fly larvae/eggs of the flies in to human either due to trauma or by consumption of contaminated food and water<sup>[1]</sup>. *Dermatobia hominis* (human bot fly), *Oestrus Ovis* (sheep bot fly), *Gasterophilus* spp (horse fly) and *Hypoderma bovis* (cattle bot fly) belong to fly larval species that require a living host (specific myiasis) for the survival and growth and are frequently associated with human/animal infestation. *Lucilia* spp. (green botfly), *Cochliomyia* spp. (blue botfly), *Phormia* spp. (black botfly), *Calliphora* spp. (blowfly) and *Sarcophaga* spp. (flesh fly or sarcophagids) are a group of fly larvae that are responsible for non-specific myiasis. These lay eggs in decaying animal or vegetable matter which also develop larvae in open wounds or sores. Flies that do not need any host to develop deposit their eggs on eatables (food, vegetables, fruits etc,) so that the larvae that hatch out can survive by feeding on the food may lead to pseudomyiasis which is caused by *Musca domestica* (housefly), *Fannia* spp. (latrine flies), *Eriatalis tenax* (rat-tailed maggots) and *Muscina* spp. Depending on the type of larval infestation human myiasis can be obligatory myiasis, facultative myiasis and accidental myiasis<sup>[2]</sup>. Most of the human infections are accidental and children with their natural habits of playing in mud, not washing hands before eating and consuming eatables like fruits that are not properly cleaned when not supervised by parents and guardians are susceptible to myiasis more

than any other population. Although human myiasis requires no specific treatment and that the infestation is eliminated naturally, prolonged infestation in children may result in malnutrition, loss of weight, stunted growth and reduction in physical and mental activity<sup>[3]</sup>. Proper parental guidance on children hygiene and Application of insecticides in the environments may reduce fly infestation and improvement of sanitation, personal hygiene may prevent recurrent larval infestation. Though there is no specific treatment guideline yet for human myiasis Oral Ivermectin (200 µg/Kg) has been successfully tried for complete removal of fly larval infestation<sup>[4]</sup>. Recent reports of myiasis in children, discovery of new fly larval species that have potential to infest human should be considered as a serious cause of concern<sup>[5]</sup>. Paediatricians, neonatologists along with clinical microbiologists should carefully consider clinical and laboratory diagnosis of human myiasis to reduce the morbidity.

## REFERENCES

1. John D, Petri W. Markell and Voge's Medical Parasitology. 9 th ed. Missouri: Saunders Elsevier; 2006. p. 328-34.
2. Ramana KV. Human Myiasis. J Medical Microbiol Diagnosis 2012; 1:e105.
3. Kandi V, Lal SK, Akhila, Shruthi, Sandhya K, Simar H, Pranuthi M, Kumar MV, Anand K, Rao SD. Persistent pediatric gastrointestinal myiasis: A case report of fly larval infestation with musca domestica with review of literature. J Global Infect Dis 2013;5:114-7
4. Francesconi F, Lupi O. Myiasis. Clin Microbiol Rev 2012; 25:79-105.
5. Kuria SK, Kingu HJ, Vasaikar SD, Mkhize JN, Iisa JM, Dhaffala A. New fly species causing human myiasis identified in Eastern Cape, South Africa. S Afr Med J 2008; 100:580-1.