

A Novel Method of Identifying Micro & Macro Filarial Nematodes

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Abstract

INTRODUCTION

The recent outbreak of Wuchereriosis Bancrofti infections in Southern areas of Tamil Nadu has resulted in a number of various manifestations in all age groups and both sexes irrespective of economic status and sanitary conditions. The onset of monsoon coincides with heavy mosquito spread both Anopheles and Culex species in all areas of localities. The range of manifestations starts from cutaneous, lymphatic, serous cavities and various other systems also. The pediatric age group is particularly vulnerable so also the rest of community.

CLINICAL STUDY

The picture of Wuchereriosis range from itchy dermatitis, lymphorrhea to pulmonary symptoms, central nervous system involvement, cardiac picture with chest pain, dyspnea and gastrointestinal pain, vomiting, fever and genitourinary picture of severe dysuria, hematuria, chyluria, dysmonorrhea., abortions, still births and suspected intrauterine transfer to foetus also.

MISNOMERS

A number of cases missed and wrongly diagnosed and treated as tuberculosis, meningo-encephalitis, malignancies, myocardial Infarcts, asthmas, arthritis..

COMMON PITFALLS OF DIAGNOSIS

The time honored teaching of peripheral blood smear study should be done to coincide with periodicity – nocturnal after 10 p.m to 2 a.m has resulted in missing so many cases of Filariasis in all localities. Our study aimed at finding the parasites in peripheral blood and saliva, urine, sputum, serosanguinous discharges, semen, vaginal fluids and CSF.

METHODOLOGY

A novel PVC sheet treated with Na₃N salt acts as a very good medium to trap, entice the parasites both Micro & Macro Filariae. The same PVC sheet gives blue coloration to Male and red color to Female adult parasites in blood, tissues and various other fluids.

The treated PVC sheet used as a cover slip gives positive results done at any time of the day both day and night. The other old method of Wright's, Giesma stain were not needed here. The technique is able to preserve the specimen for more than 48 hours also.

CONCLUSION

The tropical disease masquerading in Asian, African continents wreaking havoc in local populations has to be tackled on a war footing. The identification of cases both occult and clinical can be very much enhanced to a great extent both technically and financially simpler with this new treated PVC technique.

CLINICAL PHOTOGRAPHS

Figure 1

Figure 1: Adult Male and Female MF in blood



Figure 2

Figure 2: Microfilariae in blood



Figure 4

Figure 4: MF in sputum



Figure 3

Figure 3: MF in urine

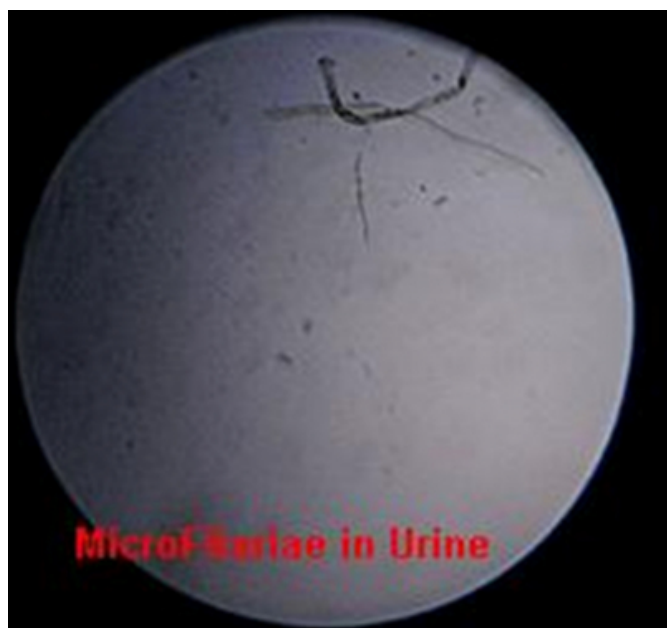


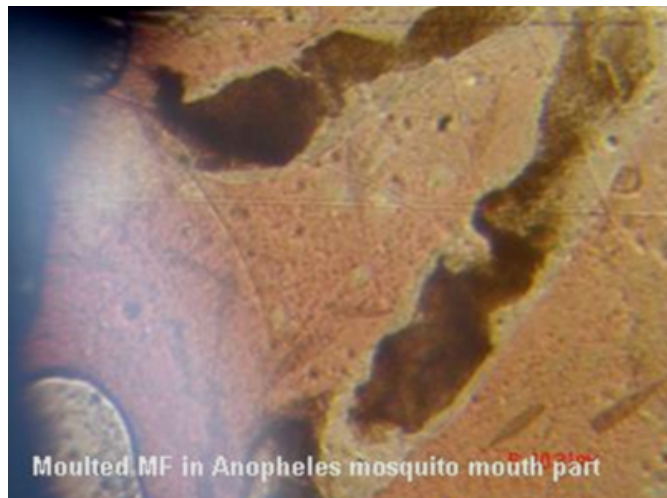
Figure 5

Figure 5: MF adult female in partuition



Figure 6

Figure 6: Moulted MF in Anopheles mosquito mouth part.



All photographs were done with Na₃N treated PVC cover slips.

Note: The treated PVC sheet is an invention of us from Na₃N salt technology.

References

Author Information

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