

Short Communication

MOSQUITO CONTROL AND MALARIA STATUS IN MANGALORE

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Introduction :

In Karnataka many districts are endemic to mosquito borne-diseases such as malaria, dengue, lymphatic filariasis and Japanese encephalitis¹. With malaria continuing unabated in Mangalore the Malaria Control Action Committee (MCAC) has come up with new strategies to combat the menace. Malaria affects an estimated 400-900 million people worldwide²⁻³. Mortality due to malaria among children and adults is high in tropical countries and estimated at 1-3 million people per year⁴. Exposure to human blood, moisture, various forms of organic material etc. attract mosquitoes in hospitals. Although stringent sanitation measures are adopted, many a times it is very difficult to get rid of mosquitoes. Mangalore City Corporation (MCC) has charged a fine of Rs. 5000/- for those who are aiding in mosquito breeding. The Bruhat Bangaluru Mahanagara Palike (BBMP) has kept aside Rs. 4 crore for mosquito control programme⁵. The present study was planned to record the methods of mosquito control adopted in hospitals in Mangalore.

Methodology :

Personal interviews were conducted with the hospital staff and hospital administrators of 10 hospitals in Mangalore using a pre-structured questionnaire during January 2011, for recording the various methods adopted by the hospitals for mosquito control.

Results :

The interview revealed that use of mosquito coils and electric liquid mosquito repellents are the major measures taken in hospitals for eradication of mosquitoes. Use of insecticides in and around hospital premises, use of chlorine, spraying of chemicals/mineral oil on water,

spraying chemicals in drainage pipes are some methods adopted for preventing entry of mosquitoes into hospitals. Maintaining good sanitary precautions is a necessary supplement to other preventive measures. Personal measures adopted by people include in addition to above, use of mosquito repellent creams, use of mineral oil, covering with bed sheets, netlons, mosquito bats, etc. MCC has earmarked Rs. 12.67 lakhs in 2010 for the control of mosquitoes. Since 2006, 15664, 10930, 5915, 5154, 6335 cases of malaria are recorded from Mangalore. Among the malaria related deaths 11 in 2006, 8 in 2007 and 1 in 2009 are reported Fig 1.

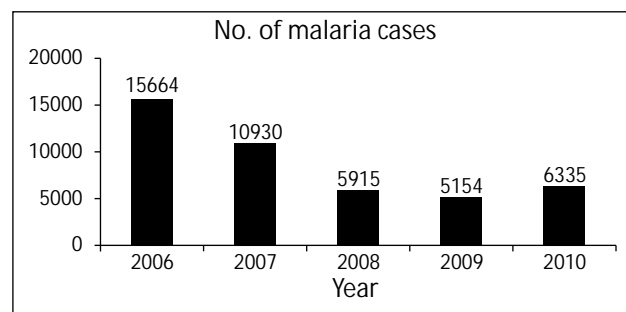


Fig 1: Number of malaria cases reported in Mangalore

Discussion :

The study has shown that the adopted mosquito control strategies are efficient but inadequate at community level. The statistics reveals a decline in malaria cases and deaths. Control of mosquitoes is necessary to combat an outbreak of mosquito-borne diseases. This can be achieved either by use of chemicals or by biological measures. Biological measures include use of *Bacillus thuringiensis* or *Bacillus sphaericus* which target larvae of mosquitoes⁶. Chemicals such as methoprene, Temephos, mineral oil, monomolecular films are used to inhibit growth of mosquitoes. Only registered pesticides should be used

which are sometimes sprayed on the ground or drainage by the corporation employing truck-mounted sprayers. By use of effective dose of registered pesticides mosquito control in public can be achieved without posing unreasonable risks to the general population or to the environment.

Conclusion :

Controlling mosquitoes and exposure to diseases they may carry is an important task in hospitals. The current control measures need to be improved to a greater extent³. Involvement of Health care providers in health education

programmes to create awareness and communicate to the people about mosquito control and the elimination of vector borne diseases may bring about significant improvement in controlling the malaria menace.

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References:

1. K. Ravi Kumar, G.Gururaj. Community Perception Regarding Mosquito-borne Diseases in Karnataka State, India. *Dengue Bulletin*, 2005, Vol 29, 157-164.
2. Nicholas J White, Joel G Breman. Malaria. In Fauci AS, Kasper DL, Braunwald E, Hauser SL, Jameson JL, eds. *Harrisons Principles of Internal Medicine*, Vol 1. 17th ed. New York, NY:Mc Graw- Hill, 2008: 1280-94.
3. Mendis K, Reityeld A, Warsame M, Bosman A, Greenwood B, Wernsdorfer WH. From malaria control to eradication: The WHO perspective. *Trop Med Int Health* 2009; 14: 802-9.
4. Peter George, D Souza Leon A.V., Narasimha Hegde and Smitha Saldhana, A Study on the Awareness Observed Among Individuals Living in Endemic Area on the Spread, Symptoms, Treatment and Prevention of Malaria. *Al Ameen J Med Sci*, 2011, 4(1): 80-83.
5. The Hindu. New hospitals, animal birth control are priorities in budget. Tuesday, Aug 31, 2010.
6. Mir S. Mulla. Biological control of mosquitoes with entomopathogenic bacteria. *Chinese Journal of Entomology*. Special publication No. 6, Proceedings of the IV National vector control symposium, Taichung, Taiwan, ROC, pp93-104. 1991.