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## Study Of Mosquitoes Borne Infections From The Rural Area Shivoor Tq. Vaijapur, Dist. Aurangabad

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### Abstract:

*The spreading of infection among the people of rural areas are takes place fastly as the people from rural areas are not aware of their health hence unhygiene and improper sanitations causes spreading of diseases among the people In these diseases mosquito born diseases are the major problems among rural area. Dengue , Malaria , Filaria , chicken guinea , etc. are the common diseases spread by the mosquitoes in these dengue is the dangerous and malaria are more dreadful disease and commonly spread among the people of rural area, these mosquito born diseases are spread due to stagnant water, stored waters in containers, tiers, tubes, tanks on terraces, the mosquito born disease causes high fever, severe headache, pain in joints, in muscles, loss of appetite, rashes on skin, on limbs, nausea and vomiting, etc. attempt has been made to know the spreading of mosquito born diseases among the people of rural areas, and symptoms of diseases, and preventive measures of these diseases.*

### 1. Introduction

Now a days pollution is increases day by day due to man made activities. the abiotic factors of the environment like air and water are get highly polluted due to man made activities among them pollution of water is the serious problems before the environment, polluted water causes growth of various dangerous micro- organisms which are harmful to human beings these polluted water also responsible for the growth of the harmful vectors, these vectors transmit the vectors borne diseases Daniel et.al., Prmental, (2007), Barbazan et.al. (1998). The population among these vectors are the mosquitoes which are the prime vectors, which transmits various fatal diseases among the community.

The mosquitoes are the vectors of parasites like Plasmodium falciparum (Welch, 1897), Plasmodium vivax, (Grassi and Feletti 1890), p. malariae (Laveran, 1881, Grassi and Feletti 1890), p. ovale (Stephens 1922), dengue virus, Chikungunya virus and flavivirus which causes encephalitis, yellow fever virus, (Togoviridae), and Rift valley virus which causes Rift valley fever in Human etc. all these parasites transmit the diseases in the human beings like malaria, filaria, dengue, chikungunya, yellow fever, encephalitis, Rift valley fever etc. the growth of mosquitoes are fastly takes place in the stagnant water. Main breeding sites of mosquitoes are man made containers which are commonly found around the human houses, the other sources of mosquitoes breeding are discarded tyres, old drums, water storage vessels, plastic food containers, gutters waste cups, water bottles, small ponds, are also the good mosquitoes breeding sites Jeron et.al. (2007).

In present study attempt has been made to focus on the transmission of mosquito borne infection among the rural areas of shivoor, between period of five months April 2013 to August 2013, shivoor is situated in vaijapur taluka dist. Aurangabad. Shivoor is high populated area with lack of facilities, improper sanitation, rural area of vaijapur taluka. Improper disposal of the waste material in lendhi nalla and around the houses resulted in to storage of stagnant water around the houses which favours the breeding of mosquitoes and transmits the mosquito borne diseases like dengue, malaria, filariasis, chikungunya, etc. (Blagodevor et.al. 2002, Dhiman et.al. 2005).

### 2. Materials And Methods

The present study is related with identification of different populations of mosquitoes in the lendhi nalla and the spreading of mosquitoes borne diseases and their symptoms, preventive measures among the peoples during the five months from April 2013 to August 2013. Mosquitoes were collected from the sites by using nylon net trapping method (Kay et.al. 1992) collection of mosquitoes are done in the evening time between 6.00 to 7.00 pm. from different area of nalla to cover all the area of nalla. the time of collection of mosquitoes are kept constant in five months. The collected mosquitoes were identified by their phenotypic characters like wings, legs, proboscis, abdomen, etc. with the reference of (Tembhare 2002, 2006, and Michele et.al.) the data of mosquitoes borne diseases were collected from local practitioners and pathology laboratories during the study period after every one month interval.

### 3.Result And Discussion

The flow of nalla of shivoor area are polluted due to deposition of solid wastes, polythene materials and also the releases of the waste water from near by houses. The nalla acts as the good breeding sites for mosquitoes the mosquitoes were collected through out the study period. among the species of mosquitoes are Aedes, Anopheles, Culex, are mostly abundant species found during the study period. the population of the species of the mosquitoes aedes aegypti are found in more in number in the month of post may, june, and july and August also. as the Aedes aegypti are found in nalla and surrounding stored water few cases of the dengue fever, and dengue haemorrhagic fever. are reported in the pathology laboratories, and from local practioners, In month of June total 07 patients are identified by the local practioners and 05 patients are observed during the month of July 2013. and 04 cases are observed during the months of August 2013. the dengue fever is severe flu- like illness that affects older children and adults (Burke R. claborn D.2010.), the dengue fever is deadly disease and cure by early diagnosis and treatment. the symptoms of dengue fever vary according to the age and general health of the patients, Infants and children may have a fever with measles like rash which is difficult to distinguish from influenza measles, malaria, infectious hepatitis and other diseases. (S. vinod and S. Prakash 2013)., older children and adults may have similar symptoms or symptoms ranging from mild illness to very severe diseases. (S. Shelke 2013)., total 16 cases of dengue are identified during the months of June, July and August 2013. Among these 14 patients show the symptoms of the dengue fever such as pain in muscles and joints, sudden high fever, severe headache, pain behind eyes, loss of appetite, loss of taste, rashes over chests, and upper limbs are appear 3 to 4 days after the onset of fever, Nausea and vomiting. In 02 patients among the 16 the serious problems are develops like dengue Haemorrhagic fever. Which shows the symptoms such as high fever, severe pain in stomach, skin becomes pale and cold. Frequent vomiting, bleeding from nose and gums, ect. Sleepiness and restlessness, excessive thirsty condition. difficulty in breathing, there is no specific treatment to treat the dengue infection. However early detection and proper medicinal care lowers the risk of dengue. The population of species of Anopheles are also common in lendhi nalla and around the gutters of houses anopheles is blood sucking mosquitoes causes malaria in human female Anopheles is blood suckers and bites humans during this time female Anopheles transmit the plasmodium pathogen in human beings, these plasmodium species are plasmodium falciparum (Welch 1897)., plasmodium vivax (Grassi and feletti 1890)., plasmodium malariae (Laveran 1881)., plasmodium ovale (Stephans 1922)., among these plasmodium falciparum is most dangerous pathogen as it can causes cerebral malaria, mainly malaria is chronic infectious disease. during present study total 12 cases of the malaria observed out of these 01 patients is observed in the months of may. 02 patients are identified during months of june 2013. where as 04 patients are identified in months of July 2013. and 05 cases are observed in the months of August. as the rainy season is the breeding period of mosquitoes and the population of mosquitoes are increases (Chinery W.A. 1984)., the common symptoms of malaria are found among the patients are fever at night time, chills, pain in joints, vomiting, Nausea, anemia, body ache, head ache, (S. sutaone 2013)., Lambert P.H. (2003)., Hougard J.M. (1998)., the Culex population was low during the study period culex causes filaria and encephalitis in human Donald J. (1980)., and there are no any cases of filaria and encephalitis are observed during the study period. Chikungunya is the another dangerous disease spread by the bite of an Aedes mosquitoes primarily by Aedes aegypti (Gubler D. J. 1998)., because human beings are major source of chikungunya virus for mosquitoes there fore chikungunya are transmitted from one person to other person by Aedes mosquitoes. The important symptoms of chikungunya are sudden fever, nausea, rashes on body, vomiting, pain in joints, chills, headache, the sever joint pain is the most common feature of these disease, joint pain can be prolonged and may be persistent. no any cases of chikungunya are found during the study period however during 2006 and 2007 major population of the shivoor area are affected by the chikungunya. The various infectious cases are observed during study area due to polluted water of nalla and biochemical conditions of the nalla is also responsible for the growth of larval forms and adults mosquitoes Burke et.al.(2010).,

### 4.Conclusion

The infection of mosquitoes borne diseases are due to exposure of peoples to biting mosquitoes, the sites which are selected for study are highly populated there fore population adjacent to lendhi nalla is vulnerable to the mosquitoes –borne diseases. Some observations are made by chinemy et.al.(1989)., The positive population of mosquitoes are increases with increase in pollution hence there is correlation between the mosquitoes borne diseases and population of mosquitoes, to prevent spreading of mosquitoes borne diseases. we must control the population of mosquitoes by using some preventive measures and by taking care such as remove all the sources of stagnant water, prevent the mosquitoes from breeding, change water in vases on alternate days. turn over all water pails and storage containers, clear the blockages in gutters spreading of insecticides in roof gutters stagnant water every months. avoid throwing of cups, water bottles, empty cans, tyers, in open areas. Use mosquitoes repellents on the skin and use mosquito coils, during night time, use bed nets, during sleeping, wear long sleeved shirts, long pants during day time to avoid the mosquito bite, the mosquitoes can be controlled by biological control also in these process guppy fish are used to control the spreading of the mosquitoes.

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