

Surveillance of Chikungunya and its Impacts in the Sainthamaruthu MOH Division

AM Razmy^{1*}

ABSTRACT. Chikungunya is dengue like disease caused by a group A virus. This disease was reported in the Sainthamaruthu MOH Division in 2006. In this study 200 families comprise of 885 individuals were studied in this MOH division. Proportion of population affected by this disease was estimated. Duration that an individual affected by this disease, contraction order, means of treatments, use of injections, observed symptoms were studied. Further associations between demographic factors and symptoms were also studied.

This study revealed that 89.2% of the population were affected with Chikungunya ($89.2 \pm 2.1\%$, $P=0.05$). In 71.5% of the families, all the family members were affected with Chikungunya ($71.5 \pm 3.0\%$, $P=0.05$) and only in 1.5% of the families, none of the family members were affected with Chikungunya ($1.5 \pm 0.8\%$, $P=0.05$). Females were affected significantly more than males ($P=0.08$). One or less than one year old children were affected significantly less than any other age group. It was found that in average, an individual suffered by this disease for 50.9 days (50.9 ± 3.6 , $P=0.05$) and it is significantly associated with the age group ($P=0.00$). It was also found that there is a significant difference in contract order within a family in relation to age ($P=0.00$). All the Chikungunya affected patients had fever and in average one had fever for 3.9 days. (3.9 ± 0.2 days, $P=0.05$). 11.5 % of the patients were given injection for pain or severe vomiting. All type of joint pains considered in this study had significant association with age ($P=0.00$). 15.1% of the Chikungunya patients had rash on their bodies and this percentage is associated with gender ($P=0.00$). 1.5 % and 9.3% of the Chikungunya patients had bleeding from Mucosa and Mucosa Ulcer respectively and this percentages are also associated with gender ($P=0.02$). 22.7% of the Chikungunya patients had vomiting and there is an association between gender and vomiting ($P=0.00$). 32.5 % of female patients had vomiting and it is only 13.2 % for males. One male and one female Chikungunya patients were reported death. However there is no evidence that the reason for these deaths was Chikungunya.

This emergence of the disease in Sainthamaruthu MOH Division in 2006 made to realize for the first time that there is no expertise or a standard guideline for the proper surveillance, clinical case, management, and control and prevention of Chikungunya fever. Socio-economic burden of the disease had devastated this MOH Division by affecting a large proportion of the population.

Key words: Association, Chikungunya, Surveillance.

* To whom correspondence should be addressed : amrazmy@gmail.com

¹ Department of Mathematical Sciences, South Eastern University of Sri Lanka