BITING ACTIVITY AND ONCHOCERCA VOLVULUS MICROFILARIAE INFECTION OF SIMULIUM DANMOSUM COMPLEX IN IVERMECTIN TREATING COMMUNITY IN CENTRAL NIGERIA.

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ABSTRACT:

The objectives of Community Directed Treatment with Ivermectin (CDTI) opted by Nigeria for the control of river-blindness is to reduce disease  prevalence and intensity  to a level where it is no longer a public health problem, and also eliminate transmission. This study was carried out in Wogan a hypoendemic community in Nasarawa State to determine the status of river-blindness transmission by the vector *Similium damnosum* complex  in the community after nine annual treatments with ivermectin. Blackflies of the Genus *Simulium damnosum* sl were caught by human baits  for twelve months within the community. The flies were procedurally dissected to ascertain physiological status, infection rate and anatomical infection with microfilariae, annual biting rate  and annual transmission potential based on the infection rate and cephalic  infections.The results indicated seasonal biting activity in the area with a peak in September. Out of 514 flies caught, 422 were dissected. 137(32.5%) were parous with 49 (35.7%) infected. Only  8 (5.8%) had cephalic L3 infections. Annual biting rate was 4690 bites/person /year and Annual Transmission Potentials was 153 infective  bites/person/year.It is evident from the results  that  transmission  is on-going in the community, an indication that CDTI has not substantially  reduced mf  in the patients to  prevent its transmission. The case is made for  integrated  chemotherapeutic and vector control  for quick elimination of the disease.

Key words: Biting, *Simulium damnosum* , Microfilariae, Infection, Ivrmectin ,Community