

sis in 12 villages in Kwale district, Coast province, Kenya - variation in clinical and parasitological patterns

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Abstract:

As part of a larger study on the effects of permethrin-impregnated bednets on the transmission of *Wuchereria bancrofti*, subjects from 12 villages in the Coastal province of Kenya, south of Mombasa, were investigated. The aims were to update the epidemiological data and elucidate the spatial distribution of *W. bancrofti* infection. Samples of night blood from all the villagers aged ≥ 1 year were checked for the parasite, and all the adult villagers (aged ≥ 15 years) were clinically examined for elephantiasis and, if male, for hydrocele. Overall, 16.0% of the 6531 villagers checked for microfilariae (mff) were found microfilaraemic, although the prevalence of microfilaraemia in each village varied from 8.1%-27.4%. The geometric mean intensity of infection among the microfilaraemic was 322 mff/ml blood. At village level, intensity of the microfilaraemia was positively correlated with prevalence, indicating that transmission has a major influence on the prevalence of microfilaraemia. Clinical examination of 2481 adults revealed that 2.9% had elephantiasis of the leg and that 19.9% of the adult men (10.8%-30.1% of the men investigated in each village) had hydrocele. Although the overall prevalence of microfilaraemia in the study villages had not changed much since earlier studies in the 1970s, both prevalence and intensity varied distinctly between the study villages. Such geographical variation over relatively short distances appears to be a common but seldom demonstrated feature in the epidemiology of bancroftian filariasis, and the focal nature of the geographical distribution should be carefully considered by those mapping the disease.