

ANTIGENAEMIA AS AN INDICATOR OF FILARIAL ENDEMICITY

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ABSTRACT

This is a report of 1-year evaluation of chemotherapeutic intervention in an area of Indonesia endemic for lymphatic filariasis. Control measures were initiated in 1977 by parasite control, informal health education, and community participation at the village level, well in accord with the WHO-concept of health for all. Diethylcarbamazine (DEC) was mass distributed in 1977 and 1988, and selectively distributed in 1978, 1979, 1981, and 1982 to those who were micro-filaraemic prior to DEC treatments, those with a history of adenolymphangitis over the previous one year period, and to all new comers. In addition, each villager with acute symptoms of adenolymphangitis was immediately treated with a single course of 300 mg DEC for 10 days. No intervention measures were taken between 1982 to 1988, and no attempt was taken to control the vector or to restrict movement between controlled and uncontrolled areas during the whole studies. With these measures, the microfilaria (mf) rate decreased from 30% to 0%, the adenolymphangitis rate from 46% to 11%, and the elephantiasis rate from 35% to 3%. The abatement of acute and chronic filarial symptoms over the study period and the disappearance of microfilaremia in the community are pointing towards the possibility of eradicating the parasite from the community. To test this hypothesis, serum samples were tested for circulating filarial antigen by a two-site antigen capture assay employing anti-phosphorylcholine monoclonal antibodies. There was a sharp fall in circulating antigenaemia, demonstrating that infection has either been eliminated from nearly all villagers, or that intensity of infection is now undetectably low. We feel that antigenaemia can be used as an indicator of filarial endemicity.

QUESTIONS AND ANSWERS :

1. Question: - How does antigenemia correlate with symptoms/adenolymphangitis ?
 - Could you clarify the increase of adenolymphangitis to 11% in 1985 ?
 - What is the prevalence of other helminths in these areas ?

Answer : - We don't know,

- No,
- *A.lumbricoides*, hookworms, *T.trichiura*.

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