

The effect of eight half-yearly single-dose treatments with DEC on *Wuchereria bancrofti* circulating antigenaemia

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Abstract:

The effect of eight half-yearly treatment rounds with diethylcarbamazine (DEC; 6 mg/kg bodyweight) on *Wuchereria bancrofti*-specific circulating filarial antigen (CFA), a marker of adult worm infection, was followed in 79 individuals who were CFA-positive before start of treatment. Half of these were also microfilariae (mf)-positive. Microfilaraemia decreased rapidly after onset of treatment and became undetectable after four treatments. Circulating antigenaemia also decreased progressively, but at a much slower rate. After two, four and eight treatment rounds, the mean CFA intensity was reduced by 81, 94 and 98%, and the prevalence of CFA positivity was 85, 66 and 57%, compared with pre-treatment, respectively. CFA clearance rates were negatively related to pre-treatment CFA intensities, and were higher among pre-treatment mf-negative individuals than among pre-treatment mf-positive individuals. Even among patients who had pre-treatment CFA intensities above the upper measuring level (32 000 antigen units), and who continued to have intensities above this level after treatment, a decrease in post treatment CFA intensities was obvious from a continuous decrease in ELISA optical