

dose DEC suggest that a combination of these drugs may be useful for mass chemotherapy to control bancroftian filariasis.

99 DRUG DOSAGE AND INTAKE PERIODICITY FOR MASS CHEMOPROPHYLAXIS OF BANCROFTIAN FILARIASIS. Moullia-Pelat JP, Glaziou P\*, Nguyen NL, Chanteau S, Martin PM, and Cartel JL. Institut Territorial de Recherches Medicales Louis Malarde, Tahiti, French Polynesia.

Single doses of diethylcarbamazine 6 mg.kg<sup>-1</sup> (DEC6) twice yearly is the treatment recommended in 1993 for mass chemoprophylaxis of bancroftian filariasis in French Polynesia. Several trials were conducted between 1986 and 1993 to compare the efficacy of single doses of ivermectin (IVER) at different dosages and periodicities of intake to DEC. The efficacy of the treatment was estimated by the geometric mean microfilaremia (mf) recurrence percentage as compared to the pre-initial treatment mf level. The results can be summarized in 3 points; (i) in terms of immediate clearance or complete negatvation of mf, IVER 400 µg.kg<sup>-1</sup> (IVER400) was more effective than DEC; (ii) 6 months after treatment, the mf recurrence percentage were 27 19 12 and 5% in carriers treated respectively with IVER100 DEC3 DEC6 and IVER400 ; whereas with a single dose of IVER400, it was 20%.12 months after; (iii) in a recent trial with the combination IVER400 plus DEC the mf recurrence percentage was 3% 6 months after treatment. In conclusion, ivermectin could be an alternative for treatment of bancroftian filariasis; the dosage IVER400 is the most effective, but a yearly intake may be not sufficient. Longer follow-up and further studies are planned before considering a yearly intake with the combination for mass chemoprophylaxis treatment.

X 100 ADVERSE REACTIONS FOLLOWING IVERMECTIN TREATMENT IN HYPERENDEMIC LOIASIS AREA. Chippaux JP\*, Garcia A, Ranque S, Schneider D, Boussinesq M, Cot S, Le Hesran JY, and Cot M. Antenne ORSTOM, Centre Pasteur, Yaounde, Cameroon; and Antenne ORSTOM, OCEAC, Yaounde, Cameroun.

Mass treatment against onchocerciasis may occur in areas were loiasis is endemic. Side effects following ivermectin treatment in people infected with *Loa loa* are poorly documented. The main purpose of this study was to evaluate the risks of adverse reactions induced by mass treatment with ivermectin. A survey was conducted in a forest village of South Cameroon. Prevalence of *Loa loa* microfilaraemia was 31%. The entire population has been observed every day within the week after ivermectin treatment (200 mcg.kg<sup>-1</sup>). 47 randomized couples formed each with one hyperfilaraemic (more than 100 microfilariae per ml of blood) and one a-filaraemic individuals, both with the same sex and age, were matched. A follow-up of temperature, blood (eosinophil count, microfilarial density) and urine (protein, glucose, blood, and microfilarial density) analysis was carried out on treatment day, then on days 3 and 7. In two patients (14%) with high levels of *Loa* parasitemia, we observed severe asthenia and conscience troubles during the week following treatment. The temperature increased significantly in hyperfilaraemic individuals ( $p < 10^{-3}$ ). **Blood appeared or increased significantly in urine samples during the first few days after treatment in people with high microfilaraemia ( $p < 10^{-3}$ ).** Proteinuria and microfilaruria did not change after treatment. We conclude that fever and blood in urine could be considered as a good early indicators of severe adverse reaction.

101 ANTIFILARIAL IMMUNE RESPONSES IN INDIVIDUALS EVALUATED OVER A 17-YEAR PERIOD ON AN ISLAND ENDEMIC FOR BANCROFTIAN FILARIASIS. Ottesen EA\*, Steel C, Guinea A, McCarthy J, and Poindexter RW. Laboratory of Parasitic Diseases, National Institutes of Health, Bethesda, MD; and Health Department, Mauke, Cook Islands.

By reevaluating a population endemic for subperiodic bancroftian filariasis 17 years after it had been previously studied we were able to add a temporal component to the usual cross-sectional approach to categorizing patients and assessing their immune responses. Three age-matched groups of

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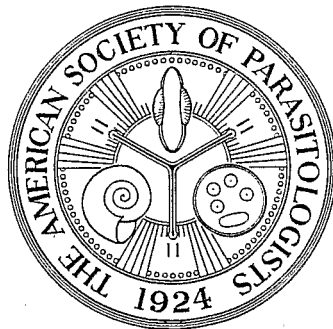
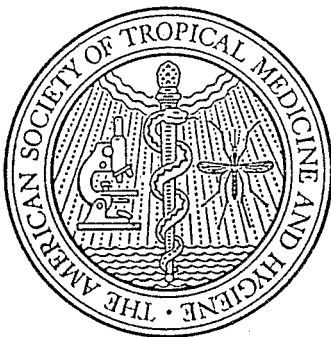
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PROGRAM AND ABSTRACTS OF THE  
JOINT ANNUAL MEETING  
OF THE AMERICAN SOCIETY OF  
TROPICAL MEDICINE AND HYGIENE  
AND THE AMERICAN SOCIETY OF  
PARASITOLOGISTS

The Hyatt Regency  
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