S4.D 16 P.

PREVENTION OF INTRODUCTION OF TROPICAL PARASITOSES INTO GDR

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Prevention, malaria chemoprophylaxis, tropical parasitoses

In the GDR (16 million inhabitants) there are 60 Tropical Health Centres which examine and consult all GDR duty travellers to and from tropical and subtropical countries. Their work is coordinated by the Institute for Infectious Diseases and Tropical Medicine in Berlin-Buch. Main attention is concentrated on the prevention of importing pathogenic Entamoeba histolytica strains into the country. The faeces of each traveller is examined for E. histolytica. If positive, the patients is treated with metronidazol. For preventing malaria infection free-of-charge chemoprophylaxis is provided according to the A, B, C countries as recommended by WHO. A leaflet and a booklet advise each traveller on hygienic measures for preventing other tropical parasitoses.

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SUSCEPTIBILITY OF PLASMODIUM FALCIPARUM TO MEFLOQUINE IN AN URBAN AREA IN SENEGAL

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Plasmodium falciparum - chloroquine - mefloquine - halofantrine.

In vitro studies recently demonstrated presence of Plasmodium falciparum (Pf) strains with reduced susceptibility to mefloquine (MQ) in West Africa. We treated 42 febrile patients with >1000 Pf asexual forms μl^{-1} and <150 nmol l^{-1} 4-aminoquinolines in blood (HPLC) in Pikine, a suburb of Dakar, in Nov. 1988 with 12.5 mg kg^{-1} oral MQ single dose and followed them by the standard WHO 14-d in vivo test. Total blood level of MQ was determined by d-2 (HPLC). In vitro median inhibitory concentrations (IC_{50} in nmol l^{-1}) of mefloquine, halofantrine and chloroquine against the parasites were measured on d-0 (semi-microtest).

8 subjects had vomiting, one had vertigo, 3 were absent on d-1 and were excluded. In 28 patients, MQ blood level was 955 ± 74 (range 362-1719) ng ml^{-1} on d-2. Their fever and parasitaemia were cleared within 3 days until d-14 (S-RI). One subject had 180 ng ml^{-1} on d-2 (20 months-old) and RII in vivo response; an other subject had 150 (d-2) and 124 (d-5) ng ml^{-1} blood MQ and RIII response (3.5 yrs-old); neither of them had vomiting. In vitro, 7 tests failed, 2 Pf strains were resistant (IC_{50}= 380,400) and 33 were sensitive (mean IC_{50}= 24.2) to chloroquine. 23 Pf strains were sensitive to MQ and halofantrine (mean IC50's= 20.6 and 16.6, respectively) and 11 demonstrated decreased sensitivity to both drugs (IC_{50}'s= 45-110 and >30, respectively), MQ IC_{50} from the RIII response was 32. MQ and halofantrine IC_{50}'s were highly correlated (r=0.81).

12.5 mg kg^{-1} oral mefloquine supressed parasitaemia until day 14 in 10 non immune patients with Pf strains with low sensitivity to MQ but failed to cure two others due to poor absorption of the drug and/or low susceptibility to MQ of the strains. Since sulphadoxine-pyrimethamine is still effective against most Pf strains in West Africa, its association with mefloquine may limit failures of the second line single dose oral treatment for chloroquine-resistant Plasmodium falciparum malaria.

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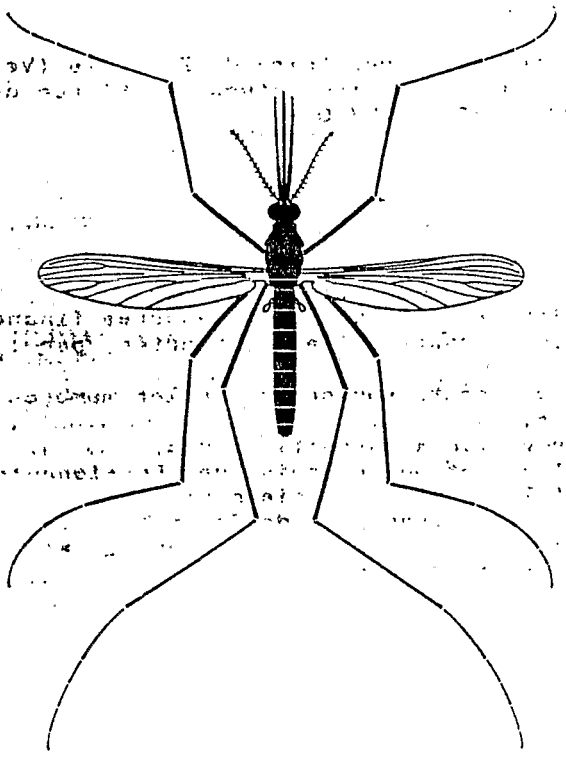

Résumés - Abstracts

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