

CORRESPONDENCE

worldwide collaboration among various medical journals in which some of these journals are devoting entire issues to this topic⁸. CDC has even started publishing a journal, *Emerging Infectious Diseases*, to provide peer-reviewed information on emerging microbial pathogens and related issues⁹.

Echoing Ramalingaswami's sentiments – allowing one the luxury of a vision – with further impetus to research on the molecular approaches to the control of the infectious diseases and reinforcement of epidemiological studies, it may be possible to mount a final assault on the conquest of the infectious diseases.

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The aroma of *Bassia* flower

In an earlier publication (*Curr. Sci.*, 1996, 71, 257) it was mentioned that 2-acetyl-1-pyrroline (2AP), the aroma molecule of basmati rice and tiger marking fluid may also occur in the flowers of *Bassia latifolia*.

We have now confirmed this with HPLC. 2AP from fresh flowers was extracted as citrate, eluted by paper chromatography and run in HPLC together with standard 2AP-citrate. 2AP occurs in fresh *Bassia* flowers

in relatively large quantities.

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SCIENTIFIC CORRESPONDENCE

Praneem polyherbal cream for contraception – Safety in malaria endemic countries

WHO reports worldwide 300–500 million clinical cases of malaria, and 1.5 to 2.7 million deaths each year, and about 40% of the world's population is at risk in some 90 countries¹. In India, malaria cases fluctuate between 2 and 2.5 million, and *Plasmodium falciparum* constitutes about 1 million or 40% cases annually. *P. falciparum* is found in almost all parts of the country, but it is a predominant infection in the north-eastern states, Orissa and the forested and irrigated tracts in peninsular India². Furthermore, *P. falciparum* has become resistant to anti-malarial drugs so that recrudescences are more common³.

Praneem polyherbal cream and pessaries with dual properties of contraception and alleviation of genital infections by G. P. Talwar *et al.* have completed phase I clinical trials at the Safdarjung Hospital, New Delhi⁴. It seems to have a go-ahead signal. Praneem polyherbal cream contains purified extract of neem seeds (praneem), quinine hydrochloride and saponins from reetha (*Sapindus mukerrossi*), dispensed in a water-soluble cream base. We are concerned at the quinine hydrochloride content in the praneem polyherbal cream which constitutes 30 mg/ml. The recommended dos-

age is 5 ml of the cream each time, i.e. 150 mg quinine hydrochloride.

Classical blackwater fever (BWF) syndrome occurred predominantly in the non-immunes or semi-immune people exposed to falciparum malaria who were taking quinine in an irregular fashion as a prophylactic. BWF used to be a common malaria complication in endemic countries, but with the advent of synthetic anti-malarial drugs such as proguanil and chloroquine, BWF has become extremely rare⁵, although sporadic cases of BWF have now been reported after halofantrine and mefloquine treatment^{6–8}.

Praneem polyherbal cream contraception technology is likely to result in the (i) loss of sensitivity of the malarial parasite to quinine as a result of its low levels in populations⁹ and (ii) polyherbal contraception may trigger immune reaction against drug-sensitized erythrocytes so that people contracting *P. falciparum* infection may come down with BWF, a serious condition characterized by massive intravascular haemolysis leading to anuria and renal failure^{5,8}. At a time when malaria is returning with speed and available malaria control tools have started producing diminishing returns, use of quinine for other than therapeutic purposes may be hazardous.

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G. P. Talwar replies:

The comments of V. P. Sharma are well taken. The polyherbal formulation in use since over a year, which will be the

one employed for contraception has no quinine hydrochloride (QHCl). Thus the risk, howsoever small, of developing resistance to quinine is not posed.

In reading the results of the experiment reported in Table 1 of the cited paper, Sharma has however, wrongly interpreted the concentrations of QHCl used in the initial prototype formulation. 30 mg/ml was the stock solution, which was tested at various dilutions to determine the dilution at which complete spermicidal action is obtained. In column 3 of the table, it is clearly reported as 3.46 ± 0.30 mg/ml (mean was taken as semen from 10 healthy donors was evaluated). It is not 30 mg/ml, the figure on which Sharma has made projections.

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Meeting Announcement

24th Annual Meeting of the Indian Biophysical Society and MBU Silver Jubilee Symposium on Structural Biology.

Date: 9-12 December 1996

Place: Indian Institute of Science, Bangalore

Topics include: Proteins and Peptides, Nucleic Acids: Structure and Function, Membrane and Cellular Biophysics, NMR and Crystallography.

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