LETTER TO THE EDITOR

Prevalence of malaria species observed at Port Moresby General Hospital from 1988 to 1996

For reasons not fully understood the epidemiology of malaria infection and the severity of malaria disease vary greatly from region to region, village to village, and even from person to person within a village. Some of these differences may be due to the particular species or strains of parasite prevailing in a locality. The purpose of this letter is to report a broader set of data, the prevalence of malaria parasite species observed at the Port Moresby General Hospital (PMGH) from 1988 to 1996, except 1991.

The records of malaria blood smears taken at PMGH over the above period were retrospectively reviewed. A total of 206,997 blood films were examined during that period with only 21% of the blood smears being positive for malarial parasites. Of the positive blood smears 85.6% were positive for *Plasmodium falciparum (Pf)*, 8.7% for *P. vivax (Pv)* and 5.5% for *P. malariae (Pm)*. Mixed infections, either *Pf* and *Pv* (the majority) or *Pf* and *Pm*, accounted for 0.2%. There were no reports of *P. ovale* species during the 8-year period.

The sensitivity of detection in these results is questionable as a low (21%) positivity of blood smears was observed. From these data, nevertheless, *P. falciparum* appears to be the predominant species seen at PMGH in this period, consistent with other reports observed elsewhere and at other times (1-4). *Plasmodium falciparum* is the dominant species in most malarious areas in Papua New Guinea, though this has been found to be marginal in some reports (2,3).

The second most common species evident from these data is *P. vivax*, accounting for 8.7% of the positive blood smears. *P. malariae* is a relatively less common species than *P. vivax*, accounting for 5.5% in this series and <5% of malaria cases in endemic areas (1-4).

Plasmodium ovale species, though not observed from any of the blood smears examined, does exist in Papua New Guinea but at a very low prevalence rate (3,5,6). There is little knowledge about the actual distribution of this parasite in the country, and where only thick blood smears are being examined, this species will easily be overlooked.

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