

SUMMARY

Malaria is a major Public Health problem in Sri Lanka. Among the causes of morbidity in Anuradhapura district, 'Malaria' ranks high. In order to practice the first component of the New Global Malaria Control Strategy, the early detection and prompt treatment, there is a need to depend on accurate clinical judgement, in diagnosing malaria. This is specially important in malarious areas where the microscopy facilities are limited.

This descriptive study was carried out in the OPD of 7 randomly selected medical institutions in Anuradhapura district, to determine the different clinical presentations, in order to create awareness among the clinicians with regard to the 'patterns' of presentation. The study population comprised of all patients whose blood smears were found to be positive for malaria parasites. The patients were interviewed by the Field Assistants of the Anti-Malaria Campaign, using an interviewer administered questionnaire. Identification and counting of parasites, with estimation of parasite density were done, using the thick blood films by the microscopist attached to those institutions.

A total of 473 blood smear positive patients were interviewed. Nearly half of them had a period of continued residence in a malarious area ≥ 15 years. They had a varying degree of previous exposure to malaria and only 11.4% were reported with the 1st episode of malaria. The predominant species of the study group was *Plasmodium vivax* (80.8%) and *P. falciparum* percentage including the mixed infections was 19.2%. The fever patients were categorized according to the subjective feeling of fever as mild, moderate and severe. Estimated mean parasite density of the 3 groups were 13171.4, 10896.4 and 14437.2 respectively.

The results showed that the commonest presenting symptom was fever. The 'tertian' fever pattern was frequently seen but the classical attacks as described in the text books were found to be significantly lower than the non classical attacks. (SND = 6.1, $p < 0.001$)

Six patterns of clinical presentations were seen among the study population. Pattern 3 consisting of fever, headache, backache, muscle and joint pain was significantly higher in adults than pattern 4 (SND = 3.8, $p < 0.01$).

Pattern 4 (fever + headache + gastro intestinal symptoms with or without fits) was found to be significantly higher in the age group < 5 years (SND = 3.3, $p < 0.01$) than pattern 3. Those between 5-14 years of age showed that both patterns 3 and 4 were common among them and found to be

having more or less equal percentages. These observations show the importance of gastro intestinal symptoms in children < 5 years as a mode of presentation of malaria. There was a difference in the patterns of presentation between those who reported with the 1st episode of malaria and those who had varying degrees of previous exposure to malaria during the 3 months preceding the study. It was observed that the patterns of presentation varied according to the period of continued residence in a malarious area and the patterns were similar to those observed in the different age groups because the study population comprised mainly of the patients who were permanent residents in this area. These differences may be attributed to the development of immunity. It was found that the patterns of presentation of those infected with *Plasmodium vivax* were not different from *Plasmodium falciparum*. The differentiation of the two species clinically is difficult. No significant difference was observed in the mean parasite density in the three categories of fever patients. Therefore, the severity of malaria cannot be based on the severity of fever.