

## Correspondence

To the Editor

**Specific IgE response in dracunculiasis**

The immune response to *Dracunculus medinensis* is still poorly known. Recently a specific IgG antibody response to an antigen extract of *D. medinensis* was evidenced by ELISA in the sera of infected patients without significant cross-reactions with other filariases (PERRUDET-BADOUX *et al.*, 1984).

A type one hypersensitivity reaction may be proposed as the pathogenic mechanism causing the clinical symptoms occurring in dracunculiasis, e.g., generalized urticaria, infra-orbital oedema and dyspnoea (CARAYON *et al.*, 1961; FAIRLEY, 1924; HODGSON & BARRETT, 1964; MULLER, 1971).

IgE levels are usually high in *D. medinensis* infection, but no information is available on the specific IgE response in this disease. A specific radio-allergo-adsorbent test (RAST) was prepared to investigate this aspect.

To provide a further test of reliability of the specificity of the method, a larval extract was employed as antigen. Briefly, the antigen was obtained as follows: L<sub>1</sub>-stage larvae were collected from the uteri of gravid females extracted from abscesses, washed in saline solution several times, resuspended in pH7.6 phosphate buffer and homogenized in a teflon pestle motor-driven homogenizer. The homogenate was extracted with slow stirring for 24 hours and centrifuged at 20,000 r.p.m. The supernatant was collected and defatted using cold ethanol (-15°C) and diethyl ether. RAST was performed according to the technique of WIDE *et al.* (1967) modified by FALAGIANI *et al.* (1978). serum anti-IgE was made by Pharmacia (Uppsala, Sweden).

Seven serum samples, obtained immediately after the blisters containing *D. medinensis* females burst in patients living in the district of Kitgum, Uganda, were tested. No patients had evidence of other parasitic infections at the time of the serum collection.

Five Caucasian patients, who had contracted different helminthiases while travelling in tropical areas, were also examined as controls. These patients were infected with *Loa loa* (two patients), *Onchocerca volvulus*, *Schistosoma mansoni* and *Ascaris lumbricoides*, respectively.

Total IgE levels were determined by the paper radio immune sorbent test (PRIST) in all the patients and the results were high both in the *D. medinensis*-infected patients and in the control group.

IgE anti-*D. medinensis* larval antigen was present at high titres in all the patients affected by dracunculiasis, whereas no positive responses were observed in the control patients. The results of this preliminary study seem to indicate a high specificity of the test. In particular no cross reactions with other filariases were shown.

Further studies are in progress concerning the specificity and the sensitivity of the test and on the distribution of specific IgE response in infected and healthy people in the same area of Uganda.

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**A study of malaria morbidity in a rural area of Burkina Faso (West Africa)**

Malaria is said to be the most important endemic disease in the world. And yet there is little well documented information on the part that acute clinical malaria plays in the general picture of disease in highly endemic areas, especially in Africa. In an attempt to obtain this information we have carried out a study of malaria morbidity, during the period August 1982 to May 1984, in a rural area of Burkina Faso. In this hyperendemic part of the country the transmission of malaria is perennial with a peak during the rainy season from May to October. Among febrile patients we considered the diagnosis of "malaria attack" only in those whose parasite count was above, 10,000 per µl of blood (BAUDON *et al.*, 1984). Medical officers working in two dispensaries have studied 526 febrile patients, representing 21.4% of

those who came for consultation. According to our criterion of diagnosis, malaria attacks were present in 29.4% of all febrile cases and 6.3% of all those who came for consultation. The highest rate of such 'malaria attacks' was seen in children: 46.8% in the group aged two to four years and 42.0% in the five to nine-year olds. In infants below seven months of age the rate was 17.8% and in patients over 19 years—7.3%.

During the rainy season (June to December) 'malaria attacks' occur in 43.1% of febrile cases with a peak of 75.8% in October. During the dry season (January to May) such "malaria attacks" occur in 8.7% of febrile cases.

We believe that this evaluation of malaria morbidity is a better criterion of the importance of this disease as a public health problem than the usual indices of spleen—and parasite rates. If the malaria situation throughout the whole Burkina Faso is the same as in the studied part of this country, the annual number of "malaria attacks" would be of the order of 550,000 in a population of 6 million (9.1%). However, it is possible that in the northern driest parts of the country the malaria is less important but this would need further studies.

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#### TSS—tropical splenomegaly or toxic shock syndrome?

Bryceson and co-workers (1983) have proposed that the term TSS be no longer used for the syndrome that they suggest now be called "hyperreactive malarial splenomegaly". I agree wholeheartedly but for a somewhat different reason.

To many, especially those who are not orientated towards tropical diseases, TSS implies toxic shock syndrome and not tropical splenomegaly syndrome. To use the identical abbreviation for such different conditions leads to confusion.

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