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Correspondence

Letters to the Editor should not exceed 500 words.

Malaria in Britain

SIR,—I was very interested to read the letter from Professor B. G. Maegraith and Dr. D. H. Smith (20 January, p. 179). Fortunately there is not always such a delay in making the diagnosis. Three cases of falciparum malaria admitted to the Hospital for Tropical Diseases, London, over the New Year period had been promptly suspected by their practitioners.

It is difficult to believe that in the case described in the Liverpool letter the practitioner did not consider malaria. All doctors have some concept of malaria, but perhaps this illness did not fit in with this doctor's concepts. I suggest that the fault lies in the traditional method of presentation of malaria to medical students. Lectures are soon forgotten and most students rely on the tropical section of whatever textbook of medicine they use. The standard textbooks, with one or two notable exceptions, quite fail to differentiate clearly between benign and malignant malaria. The four parasites (*Plasmodium vivax, falciparum, ovale,* and *malariae*) are discussed together. Stress is laid on temperature charts and splenomegaly. The impression may even be gained that *P. falciparum* infections are a subtertian variant of classical tertian (*P. vivax*) fever. But there are vital differences between the benign malarias (*P. vivax, ovale,* and *malariae*) and malignant malaria (*P. falciparum*). Benign malaria is virtually non-fatal and relatively unimportant. Parasites are never found in more than 2% of the red cells. In malignant malaria parasitaemia may rapidly reach high levels, and once over 30% of the red cells are parasitized recovery becomes increasingly unusual.

Malignant malaria most commonly presents as an influenza-like illness, though complications may confuse the picture so that the diagnosis should be considered in any ill person who has recently returned from the tropics. The temperature chart is unhelpful, and the absence of splenomegaly in no way excludes the diagnosis, which can only be made or excluded with certainty by the examination of blood films. Falciparum malaria may lead to death within a few days of the onset, and is still responsible for an enormous annual mortality in tropical populations.

No textbook would be so indistinct in dealing with benign and malignant lung tumours as many are with benign and malignant malaria.—I am, etc.,

PHILIP REES.

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SIR,—The importance of the early diagnosis of exotic diseases brought to this country cannot be too strongly emphasized. The general practitioner is probably the first to see the majority of such cases, but even so it is surely unfair to single him out for "pressure," as Professor B. G. Maegraith and Dr. D. M. Smith suggest (20 January, p. 179).

On a recent Boxing night a pregnant Englishwoman was admitted to a provincial maternity unit in Lancashire with a history of fever and vomiting for a week. Initially she was labelled "P.U.O.," and an antibiotic prescribed. Next morning she was much improved and her pyrexia had settled; similarly the following morning after a high evening temperature. Over 36 hours she had been seen by three doctors, two of them from overseas countries. A history of travel was available on admission: the patient had left Ghana 17 days previously.

My own (then) recent experience of malaria overseas led me to an immediate diagnosis, and a blood smear showed heavy *Plasmodium falciparum* infection. Without this experience the diagnosis could easily have been further delayed. Looking back, on history alone the diagnosis appears obvious, but it is easy to be wise after an event, particularly so for the specialist.

Even after confirmation of the diagnosis parenteral therapy was not available and drugs had to be obtained from a teaching centre, causing a further delay in instituting adequate treatment. After a few critical days the patient fortunately recovered, but lost a premature infant in the process.

More pressure is needed, but not only on the general practitioners—on all medical practitioners; on all hospitals, to ensure adequate therapy is immediately available should such cases be admitted; and, above all, on people at risk, who constantly seem to think that prophylactic measures are unnecessary.—I am, etc.,

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Effects of Nicotine

SIR,—As one who in former years has had papers published in your journal describing actions of nicotine in the body, I was interested in the leading article on the effects of nicotine (13 January, p. 73). There is recent work which adds materially to that account and shows that the stimulant action of nicotine is not only definite but useful. Bovet[1] (a Nobel laureate) has shown that the rate at which a conditioned reflex is acquired can be greatly increased by nicotine. Rats given a shock through the floor of the cage escape the shock by jumping up a wooden pole. They are given warning of the shock by a light five seconds previous to the shock. The rate at which they learn to jump when the light appears is increased by 100% in slow learners after an injection of nicotine. Morrison[2] has shown that the rate at which thirsty rats press a lever to get water is also increased by an injection of nicotine. The number of times the lever is pressed in 90 minutes may go up by as much as 70%. Thus the rats work harder.