Unusual Plasmodium related to P simiovale

Sir,—Plasmodium ovale is rare outside Africa, but is occasionally found in SE Asia and Oceania (5 cases have been reported to the PHLS Malaria Reference Laboratory as imported into the UK in the past 10 years). On Aug 24, 1992, blood samples from a patient suspected of having malaria were received by the Central Laboratory, St Mary's Hospital, Portsmouth. The patient, a male of 35, had returned 2 months earlier from a 6-month trip to Papua New Guinea where he had not been taking proguanil prophylaxis regularly, and discontinued it on return. He had been treated for malaria with intravenous quinine 1 month before leaving Papua New Guinea.

P vivax-like parasites, possibly mixed with P falciparum, were diagnosed on the blood film, and treatment was started. The blood film and serum were sent to the PHLS Malaria Reference Laboratory, where the infection was diagnosed by microscopy as P ovale (figure). Because of the interval involved, we considered it likely that the infection was a relapse arising from hypnozoites in the liver. This was an interesting and unusual case of P ovale; we saved the slide and serum samples, but did not consider the case worth publishing. More recently, a malaria parasite related to P simiovale in human "P ovale" infections in Papua New Guinea and Brazil has been identified by molecular genetic techniques (March 27, p 780). P simiovale is a P ovale-like parasite of old-world monkeys. Because it occurs mixed with P vivax, studies on a pure line of the human isolates have not yet been done.

We are unable to separate P ovale from P simiovale on morphological grounds. Serum antibodies to the blood stages of malaria parasites do not usually reliably identify the species, but the relatively short-lived antibody to specific epitopes of the circumsporozoite protein does. We examined the patient's serum for antibody to specific circumsporozoite peptides of P falciparum (NANP repeating recombinant peptide R32LR, P vivax (types 1 [GDRAGQPA], and 2 [ANGAGNQPG]). P malariae (NAAG), and P simiovale (APGANQEGGAA). Two ELISA tests showed that the patient had been exposed to sporozoites of both P falciparum and a close relative of P simiovale (optical density values [compared with the mean of negative controls + 3 SD] 1:2 for P falciparum, 0 for P vivax 1 and 2, 0 for P malariae, and 0:3 for P simiovale).

We thank Dr Altaf Lal, CDC Atlanta, for P falciparum, P vivax, and P simiovale peptides; and Dr Andrew Falconar, LSHTM, for the P malariae peptide.

PHLS Malaria Reference Laboratory, London School of Hygiene and Tropical Medicine, London WC1E 7NT, UK

D. C. Warhurst J. M. Tucker

Instituto Evandro Chagas, Belem, Para, Brazil

M. M. Povoa

Haematology Department, St Mary's Hospital, Portsmouth, UK

P. J. Green


Heart failure after parvovirus B19 infection

Sir,—Parvovirus B19 is the infectious agent of fifth disease of childhood and its various features have been reviewed. Myocarditis caused by B19 was reported in an infant and has been found in the hearts of infected fetuses dying of hydrops fetalis. We report transient heart failure after parvovirus B19 infection in an adult.

A 56-year-old man had a febrile illness for 5 days with slight respiratory symptoms. He was previously healthy and took no medications, and he did not abuse alcohol or smoke. After being afebrile for 2 days, he developed an uncharacteristic rash on his trunk, buttocks, and thighs. The rash disappeared after 3 days but was followed by gradual onset of nightly cough after 2-3 days. The symptoms increased with time and he had to sit up in bed. After 5 weeks he was found to have slight anaemia and was referred for further evaluation.

He was in good general health, but bilateral oedema and pulmonary rales were found. There were no murmurs and the heart rate was 72/min. An electrocardiogram (ECG) was normal. Chest radiography showed pulmonary congestion but no pleural fluid or cardiomegaly. Haemoglobin, which had been normal on the first visit, had fallen to 11-6 g/dL, reticulocytes were 3.4%, and bone marrow examination was normal. Serology for parvovirus indicated a recent infection, with both IgG and IgM antibodies present. No parvovirus was found in the serum by polymerase chain reaction.

The patient was free from all symptoms 1 week after starting low-dose diuretics, which were continued for 5 months. Echocardiography revealed no enlargement of the left or right ventricle. Contractility pattern was also normal.