challenges have great promise in diagnosis and monitoring of specific disease activities.

Nándor Marczin, Bernhard Riedel, David Royston, *Magdi Yacoub
*Department of Cardiothoracic Surgery, National Heart and Lung Institute, Imperial College of Science Technology and Medicine, Harefield Hospital, Harefield, Middlesex UB9 6GJ, UK; and Department of Anaesthetics, Royal Brompton and Harefield Hospital, Harefield


Surveillance of antifolate-resistant malaria

Sir—The epidemiology of antifolate resistance in Plasmodium falciparum can be monitored by molecular techniques due to a high correlation between mutations in dihydrofolate reductase (DHFR) and dihydropteroate synthase (DHPS) and in-vitro resistance to pyrimethamine and sulphonhazodine. 1,2 The results of James Kublin and colleagues (May 30, p 1629) 3 and other studies 4 reinforce the association between the genotype and phenotype. 1,2,3

The findings of Kublin and his colleagues in the Amazonian basin are not, however, representative and differ from the mutations observed in Africa. In their series, all 11 patients with sensitive responses were infected with P. falciparum isolates that carry a wild-type DHPS and a mutant Asn-108 allele in DHFR. In Africa, sensitive responses were reported with parasite genotypes that carry a wild-type DHPS and a wild-type or mutant (Asn-108 with or without Arg-59) DHFR. 1,4

In the Amazon, there was no difference in the genotype in relation to the level of in-vivo resistance to sulphadoxine-pyrimethamine. In Africa, we found a tendency towards a higher level of in-vivo resistance in the presence of triple mutations in DHFR (Ile-51, Arg-59, and Asn-108). 1,4 DHFR mutant codons 30 and 164 and DHPS mutant codon 540, frequently detected in the Amazon, are rare in Africa. By contrast, the mutant DHFR codon Arg-59 is common in Africa but not in the Amazon.

These genotype differences may reflect independent genetic changes in malaria parasites from different geographical origins. Before molecular analysis is used to describe the epidemiology of antifolate resistance in an endemic area, further studies that correlate the in-vivo resistance and point mutations are needed to characterize the genotype of drug-sensitive and drug-resistant parasites.
EDITORIAL
335 Shaken babies

COMMENTARY
336 Antenatal screening for Down’s syndrome: where are we and where next? J E Haddow
337 Thin line between research and audit V Choo
338 Implantable cardioverter defibrillators—for whom? S J Connolly
339 Axon loss in multiple sclerosis N Scolding, R Franklin
341 Room air or oxygen for asphyxiated babies? W O Tamrow-Mordi
342 Low-dose aspirin not for pre-eclampsia M Darling

ARTICLES
343 UK multicentre project on assessment of risk of trisomy 21 by maternal age and fetal nuchal-translucency thickness at 10–14 weeks of gestation R J M Snijders and others, for the Fetal Medicine Foundation First Trimester Screening Group
347 Macrophagìc myofasciitis: an emerging entity R K Gherardi and others, for the Groupe d’Etudes et Recherche sur les Maladies Musculaires Acquises et Dysimmunitaires (GERMMAD) de l’Association Française contre les Myopathies (AFM)
350 Outbreak of epidemic typhus associated with trench fever in Burundi D Racult and others

EARLY REPORTS
359 Electropotential measurements as a new diagnostic modality for breast cancer J Cuzick and others
364 Introducing a placebo needle into acupuncture research K Streitberger, J Kleinhenz

CASE REPORT
366 Fractured rib, pleural effusion, and ascites S Thomas and others

RESEARCH LETTERS
367 Fulminant neurogenic pulmonary oedema with hand, foot, and mouth disease L-Y Chang and others
368 Treatment of Guillain-Barré syndrome with interferon-γ A Créange and others
369 Human Dobrava hantavirus infections in Estonia Ä Lundkvist and others
369 Effect of starch-free bread on metabolic control in type 2 diabetes B Stilling and others
370 Telencephalin as an indicator for temporal-lobe dysfunction P Rieckmann and others
371 Salivary antibodies to lipopolysaccharide antigens of Escherichia coli O157 H Chart, C Jenkins

FEATURE
378 Extending the targets for antihypertensive drugs

DISPATCHES
379 UK’s big budget faces big demands

POLICY & PEOPLE
380 IOM considers breast-implant safety

NEWS
375 Lyme disease vaccines are safe and effective
376 Shellfish point to cystic-fibrosis therapy
377 Human albumin controversy

SCIENCE & MEDICINE
375 Lyme disease vaccines are safe and effective
376 Shellfish point to cystic-fibrosis therapy
377 Human albumin controversy

TECHNOLOGY
378 Extending the targets for antihypertensive drugs

ELECTROLYTE QUINTET
391 Magnesium and phosphorus J R Weisinger, E Bellorin-Font

HYPOTHESIS
397 Aetiology of transient global amnesia S L Lewis

派遣
379 UK’s big budget faces big demands

Cyanide poisoning in Japan

Policy & people
380 IOM considers breast-implant safety

Report highlights India’s health failings

Health service for China’s peasants

US House backs patients’ rights bill

Bid to stop assisted suicide in USA

Cyanide poisoning in Japan

IOM considers breast-implant safety

Report highlights India’s health failings

Health service for China’s peasants

US House backs patients’ rights bill

Bid to stop assisted suicide in USA

Genetically engineered foods debate

Contents list continues inside