

CAUSES AND CLINICAL DISCRIMINATORS OF FEBRILE ILLNESS IN TROPICAL ASIAN SCHOOLCHILDREN

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Background: Undifferentiated febrile illnesses are a major cause of morbidity in children who reside in or travel to tropical countries. We sought to describe the causes and clinical discriminators of febrile illness in schoolchildren in 2 areas of rural Thailand.

Methods: Patients 7-18 years of age presenting with documented fever $>38^{\circ}\text{C}$ without focal infection provided sera for testing at reference laboratories in Atlanta and Bangkok using Leptospirosis MAT, Dengue EIA, and *S. typhi* dot-ELISA.

Results: Of 342 schoolchildren enrolled, 339 (99%) provided convalescent sera. Testing to date has identified dengue in 112/328 (34%), typhoid fever in 60/315 (19%), and leptospirosis in 10/208 (5%). Schoolchildren with dengue were more likely to have a rash (28% vs. 14%, $p<0.01$), as well as leukopenia (50% vs. 15%, $p<0.01$), thrombocytopenia (29% vs. 10%, $p<0.01$), and elevated SGOT (26% vs 7%, $p<0.01$). Those with typhoid fever more often had vomiting (56% vs 41%, $p=0.04$) and lymphadenopathy (28% vs. 17%, $p=0.05$) than those with other causes of fever; bloody diarrhea, rose spots and hepatosplenomegally were infrequent (0-2%) in all patients. Schoolchildren with leptospirosis more commonly had elevated alkaline phosphatase (72% vs. 33%, $p<0.01$), bilirubin (45% vs. 6%, $p<0.01$), and creatinine (27% vs. 6%, $p<0.01$).

Conclusion: Dengue was the most important cause of fever among this group of school-children in Thailand; typhoid may be important, but further microbiologic investigations are indicated. Basic clinical and laboratory findings can help to discriminate between major pathogens. Severe headache and cytopenias indicate dengue infection, vomiting and lymphadenopathy point to typhoid fever, and elevated alkaline phosphatase, bilirubin and creatinine are seen in leptospirosis.

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BIOLOGIC CHARACTERIZATION OF HIV-1 AE/B RECOMBINANTS: IMPLICATIONS FOR HIV VACCINE DEVELOPMENT

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Background: Several HIV-1 recombinants have become prevalent circulating forms, such as CRF 01_AE and the recently identified CRF 15_01/B. The goal of this study was to characterize the neutralizing antibody (NAb) profiles and biotypes of HIV-1 recombinant isolates from Thailand to assess the potential impact of these recombinants on vaccine development.

Methods: One unique NSI AE/B recombinant (NP1623), and two SI CRF 15_01/B isolates (99.Mu.2079 and OUR1332) were recovered by co-culture. Neutralization was assessed using an extracellular p24 assay and an intracellular (IC) p24 flow cytometry endpoint in which PBMC are stained for both CD4 and p24. Coreceptor usage was measured in GHOST cells and in a PBMC assay using coreceptor inhibitors.