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East African Trypanosomiasis in Travellers

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Background: Although there has been a resurgence of trypanosomiasis in many countries in sub-Saharan Africa since the early 1970s, the risk to short-term travellers and expatriates remains small. However, East African trypanosomiasis (EAT) is an acute life-threatening disease, and diagnosis and treatment are challenging.

Methods: NICD is a centre for surveillance of communicable diseases and operates an advisory service for clinicians and public health practitioners. Serious and unusual imported cases therefore come to our attention. We describe the epidemiological features, clinical presentation and outcomes of 18 travellers with EAT managed in South Africa between 2001 and 2008.

Results: Most patients acquired the infection in Malawi, notably in the Kasungu National Park, with the remainder presenting after visiting game parks in Kenya, Zimbabwe, Uganda and Tanzania. Thirteen patients were tourists, one was a Zambezi valley farmer and 4 were involved in conservation or army field exercises. Incubation periods were generally less than 10 days, and disease was typically acute with fever and headache, and trypanosomal chancres in at least 50%. Malaria was the most frequent misdiagnosis and several patients received malaria treatment despite persistently negative laboratory tests. Thrombocytopenia and varying degrees of renal dysfunction were typical laboratory findings. Three patients had central nervous system involvement (presence of trypanosomes, and/or leucocytosis and/or raised protein on examination of cerebrospinal fluid) and required melarsoprol treatment. Suramin treatment was generally well-tolerated with renal dysfunction in only one patient. Three patients died; one with myocarditis and arrhythmia, one with multi-organ failure, and one with a likely melarsoprol-induced encephalopathy. Two patients were reported to have relapsed after treatment.

Conclusions: East African trypanosomiasis should always be considered in the differential diagnosis of a febrile syndrome in travellers from countries where the disease is endemic. Disease is frequently complicated and expert laboratory support and clinical management is generally required.

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Is Pregnancy Outcome Influenced by Chikungunya Infection? A Case-Control Study in 1401 Pregnant Women Enrolled in the CHIMERE Cohort

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Background: In 2005—06 a Chikungunya virus outbreak infected 38% of Runion Island population. Forty-two cases of mother to child transmission were described for the first time. The purpose of the CHIMERE cohort study was to determine the consequences of Chikungunya infection on pregnancy outcomes.

Methods: In 2006, 1401 pregnant women were enrolled in the CHIMERE cohort. The diagnosis of Chikungunya was based either on serology (IgM & IgG Chikungunya specific serology) planned at inclusion and at delivery, or RT-PCR performed in case of symptoms. We determined that 584 women were not infected by the virus at delivery (IgM− and IgG−), 648 were infected antepartum (IgM+, RT-PCR+, or IgG seroconversion) and 27 before pregnancy, date of infection was imprecise for 50 and assessment was incomplete for 92. We compared pregnancy outcome (prenatal hospitalization, fetal-loss and stillbirth, premature delivery, mode of delivery, birth weight, fetal malformations, newborn hospitalization) between the 584 women free of Chikungunya infection and the 648 infected during pregnancy. This prospective multicentric study has been approved by IRB (CPP de Tours, France).

Results: For the 648 women infected by Chikungunya during pregnancy, the infection occurred during the first, second, and third trimester for 15, 59 and 26%, respectively; 50% presented fever, 94% arthralgia and 75% skin rash. The only difference between non-infected and infected women was the number of hospitalization during pregnancy (28 versus 42%, $p = 0.0001$). Other outcomes, fetal loss and stillbirth (2.2 versus 2.0%), premature delivery (12 versus 10%), cesarean rates (18 versus 16%), birth weight (3067 versus 3121 g), fetal malformations (5.0 versus 5.7%) and newborn hospitalization (6.7 versus 7.4%) were similar.

Conclusion: We do not find any impact of Chikungunya infection on pregnancy outcomes except for the number of prenatal hospitalizations.

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