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Abstract (poster session)

Imported submicroscopic malaria: can it be a risk for re-emergence in Europe?

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Objective: Submicroscopic malaria can be defined as low-density infections of Plasmodium that are unlikely to be detected by conventional microscopy. Such submicroscopic infections only occasionally cause acute disease, but they are capable of infecting mosquitoes and contributing to retransmission. This entity is frequent in endemic countries; however, little is known about imported submicroscopic malaria. The goals of this study were two fold: i) to determine the frequency of imported submicroscopic malaria; ii) to describe epidemiological, laboratorial and clinical features of imported submicroscopic malaria. Methods: During the years 2008-2011 we conducted a prospective screening program of malaria in all immigrants patients attending in Tropical Medicine Unit of Hospital Central de Asturias. Routine detection techniques for Plasmodium included Giemsa staining and microscopic examination through thick and thin blood smear. A seminested multiplex malaria PCR was used to diagnose or to confirm cases with low parasitemia. All positive patients were treated with quinine and doxycycline during 7 days. Results: We screened 606 patients. Twenty six patients had a malaria diagnosis, 14 of them (53,8%) had a submicroscopic malaria. Mean age was 37 years (23-68) 57% male. No patients come back to countries of origin since their arrival to Spain. The countries of origin were: Equatorial Guinea (43%), Senegal and Ivory Coast (14.3% respectively), Ecuador, Brasil, Nigeria and Mauritania (7% respectively). Fever was present only in four patients (28%) and the rest were asymptomatic Mean time in Spain were 551 days (15-1,825). One patient had leukopenia and other patient had thrombopenia. Nine patients (64.3%) had P. falciparum infection (64,3%), 3 had P. malariae infection (21,4%), one patient had P. vivax and one patient had P. ovale infection. Conclusions: Results from this study suggest that imported submicroscopic malaria should be considered in all patients proceeding from endemic zones. Although it is usually asymptomatic it may be responsible of fever or abnormalities laboratories. The apparition of autochthonous cases of malaria could be favoured by this patients.