

**O1153 Prevalence of malaria and other zoonotic diseases in the rural Peruvian Amazon**

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**Background:** Malaria is endemic in the tropical Peruvian Amazonia where it remains an alarming health problem. That is why malaria control programs are being carried out including activities such as an active search for asymptomatic malaria cases. The objective of this study is to know the prevalence and etiology of malaria and other zoonotic diseases in these communities.

**Materials/methods:** Prospective study of 211 subjects ( $\geq 18$  years) randomly selected through the Peruvian national surveillance system for malaria cases in rural communities located along the Nanay river. Results from thick blood film were compared with those obtained in Spain by: a) two nested multiplex PCR for malaria and filariasis detection ( $n=211$ ) respectively, b) two immunoenzymatic assays for anti-*Trypanosoma cruzi* antibodies detection ( $n=185$ ) (ELISA-CNM, total Ag and recombinant Chagatest v 4.0, Wiener, Argentina) and c) immunofluorescence assay for anti-*Leishmania infantum* antibodies detection. A positive diagnosis of anti-*Trypanosoma cruzi* antibodies was considered when both serological tests were positive.

**Results:** Average age was 36,2 years, 52,6% were women; main clinical manifestations were: fever (26,6%), headache (33,6%), arthralgia (20,3%) and muscle pain (18,1%).

Microscopy performed in the field diagnosed 19 positive cases of malaria (9,0%) (13 *Plasmodium vivax* and 6 *Plasmodium falciparum*) and four cases of filariasis (1,9%) produced by *Mansonella ozzardi*. PCR detected 71 cases of malaria (33,6%) (68 *P. falciparum* and 3 mixed infection by *P. falciparum* + *P. vivax*). Only two of the cases of filariasis were confirmed as *Mansonella ozzardi*.

Anti-*Trypanosoma cruzi* antibodies were detected in six cases (3,2%) by conventional and recombinant ELISA. Anti-*Leishmania infantum* antibodies were not detected.

Fever was related with microscopy detection of malaria on the field (68,4%) ( $p \leq 0,001$ ), however it was not related with malaria diagnosis by PCR or any other zoonotic diseases studied in Spain.

**Conclusions:** submicroscopic parasitemia is frequent in asymptomatic population in these Amazonian rural communities, and knowing the molecular diagnosis of this condition is important, in order to improve disease control. Chagas disease seems to be clearly underdiagnosed. In the future, we need to locate these patients with a positive result for clinical assessment, not considered in the type of screening performed.

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