

**P0220 Length of stay in endemic area and delay to *Plasmodium falciparum* attack after returning: a counter-intuitive yet useful observation**

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**Background:** in studies of inoculation of *Plasmodium falciparum* to volunteers, malaria incubation period is 8.94 days (95%CI: 8.41–9.46). However, we had observed in our institution several cases of patients who presented a malarial attack shortly after returning from a long stay in an endemic area, as if the symptomatic infection was triggered by the travel back. We therefore wanted to determine whether patients returning from stays of different lengths in endemic area presented with different delays between their return and the malaria attack.

**Materials/methods:** We used the 2006-2016 data from the French malaria national reference center. We included all travelers who stayed at least 1 day in an endemic area. We compared the delays between return and first symptoms and between return and diagnosis in patients who stayed in an endemic area for different lengths.

**Results:** 12249 cases were included (age 35.4±17 years). The median stay in endemic area was 31 [20-57] days. The median delay between return and the first symptoms was 4 [0-10] days, and the mean delay between return and diagnosis was 9 [5-14] days. The first delay was longer in travelers returning from a stay <5 days (median 9 days) or a stay of 6-10 days (median 8 days) or a stay of 11-15 days (median 6 days) than in those returning from a stay of 16-30 days (median 4 days) or a longer stay (median 3 days). Strikingly, the median delay between return and diagnosis was not different in travelers returning from a stay 31-40 days, a stay of 41-50 days, a stay of 51-75 days or a longer stay.

**Conclusions:** Even if it is slightly longer in travelers returning from a short stay in endemic area, the delay between the return and the first symptom of malaria attack has only limited variations according to the length of stay in endemic area. This suggests that the return travel itself triggers the onset of symptomatic infection.

