Rapid communications

IMPORTED FALCIPARUM MALARIA IN EUROPE: 2007 DATA FROM TROPNETEUROP

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An analysis of sentinel surveillance data of TropNetEurop shows 453 imported cases of falciparum malaria for 2007 – 442 with falciparum (97.6%) only and 11 with mixed plasmodial infections [1]. Previous comparisons with national notification data have shown that the sentinel system of TropNetEurop, with 53 member countries, covers approximately 12% of all imported malaria cases in Europe. Thus, although the analysis does not give a complete picture, we feel it gives a good indication of the quantity and quality of this infection in northern Europe. Although this trend is not mirrored in all countries in a similar way, overall numbers have been decreasing since a peak of 928 cases of falciparum malaria in 2003. The reasons for this are unclear, but decreased infection risks for travellers due to decreased vector exposure may play a significant role.

The majority of patients with falciparum malaria were male, on average 37 years old and had travelled for an average of 30 days (median value). The data on malaria chemoprophylaxis show that 5.7% of patients with falciparum malaria had used a chemoprophylaxis with mefloquine (7.2% in 2005). Doxycycline chemoprophylaxis was used by 3.5% (1.8% in 2005), atovaquone/proguanil by 1.3% (0.5% in 2005), and chloroquine plus paludrine in 0.9% (vs. 3.3% in 2005). Clearly, these data do not give information about current prophylactic failures, since proper compliance is very difficult to assess.

The number of immigrants and foreign visitors among falciparum malaria patients has remained high since 2003. Europeans constituted approximately 32% of the cases in 2007, whereby Europeans were defined as people born in Europe; sub-categories include expatriates and people living in Europe. Immigrants represented by far the largest group, whereby immigrants were defined as people born outside of

Europe who have moved to the continent, possibly years ago. We distinguished place of birth, place of residence and nationality, as well as newly emigrated immigrants and those who have been living in Europe for many years. As far as activities during travel are concerned, visiting relatives and friends was the main reason for travel in the group of immigrants (76.4%). A considerably large group among European patients were business travellers (10.4%). Other significant groups were those visiting relatives and friends (25.7%) and charity travellers (11.8%).

The greatest number of cases was from West Africa. In 2007, Nigeria, Cameroon, Ghana, and Benin has the most cases. The distribution of symptoms showed very similar patterns to previous years. Patients with falciparum malaria tended to have fever, although up to 7% had none. A significant proportion also presented gastrointestinal problems. Vomiting was named in 28% of cases, diarrhoea in 16%. Clearly, both symptoms may interfere with oral antimalarial therapy.

A small percentage of patients (2.5%) were asymptomatic when infection was established. In patients with clinical complaints, symptoms were quite unspecific. Most patients complained of fever, respiratory and genitourinary symptoms. The majority of patients became symptomatic within a very brief period after their return to Europe (median four days) and did not wait long to present themselves (median also four days) to a physician. Although 74% of the patients were treated as inpatients, 26% were treated on an outpatient basis. This is routine in some European countries, for example Switzerland and Belgium. For those who stayed in hospital, the median length was four days, with up to 42 days in complicated cases. The rate of complications was low, with 1.8% of patients presenting with cerebral malaria and 3.4% with other reasons for complicated malaria. No patient in the reported group died. As curative treatment, atovaquone/proguanil was the most frequently used antimalarial within the network, and quinine the second most used.

Falciparum malaria continues to be a significant threat for travellers to endemic areas and needs to be considered as a differential diagnosis when dealing with patients who might have been exposed in endemic areas.

FIGURE

Imported falciparum malaria cases in Europe according to TropNetEurop, 2007 (n=453)

References

1. TropNetEurop Sentinel Surveillance Report: Falciparum malaria in 2007. Available from: <http://www.tropnet.net>

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