Elderly are almost 10 times more likely to die of malaria than younger tourists

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Tourists who have visited a malaria-infected country and are over the age of 65 are almost 10 times more likely to die from the disease than those who are aged 18-35, reveals a study published in the *British Medical Journal* today. The death rate among tourists is particularly high when returning from a 'winter sun' holiday in the Gambia, West Africa.

Authors from the London School of Hygiene and Tropical Medicine and the University of Oxford carried out an observational study based on 20 years of UK data involving over 25,000 patients. They looked at the comparison between fatal and non-fatal cases of malaria and found that tourists are over 9 times more likely to die from the disease than those who are of African heritage travelling to meet friends or family. Most cases of travellers’ malaria in the UK do affect people of African heritage, but their risks of dying from the disease are relatively low. This may be due to early exposure to malaria, or to greater awareness of the symptoms and a tendency to seek medical help earlier.

The risk of dying from malaria increased steadily with age, with 25/548 (4.6%) of cases being fatal in people aged over 65. There were no deaths in children under 5 years. Overall, case fatality was 3.0% (81 deaths in 2740 cases) in tourists compared with 0.32% (26/8077) in travellers visiting friends and relatives. Those born in African countries with endemic malaria had a case fatality of 0.4% (36/8937) compared with 2.4%. Case fatality was particularly high in people visiting the Gambia (3.9%, (28/726)) compared with any other west African country (0.4% (58/13,448). Looking only at tourists increased this difference, with a case fatality of 6.0% (20/333) for cases from the Gambia compared with 1.4% (8/565) for tourists visiting the rest of west Africa.

There are reported to be 250 million cases of malaria in the world each year with over 800,000 associated deaths. Travel to infected countries such as Africa is increasing and the UK has one of the highest rates of imported malaria in the world, half of which comes from migrants travelling from infected countries.

For tourists, low drug prophylaxis rates and low awareness of the dangers of malaria may well be factors for death from malaria. There is also a higher death rate in December with over a quarter of deaths occurring then, which may be due to travellers mistaking symptoms for common winter viruses, or getting less rapid diagnosis over the holiday period. The more commonly malaria is seen in an NHS region, the lower the death rate suggesting familiarity with treating the disease may lead to better outcomes. Delay in seeking care may well be a major factor; treated early the outcome for malaria should be good.

The authors conclude that those of African heritage who are visiting friends and family are far more likely to get malaria due to low prophylaxis uptake, but tourists travelling from Europe, especially on winter sun holidays in Africa are far more likely to die from the disease once acquired, a risk that further increases in older tourists. They stress the importance of interventions from doctors who should give pre-travel advice encouraging prompt presentation when returning travellers have a fever and the need for taking anti-malaria drugs. They say doctors must make holidaymakers aware that malaria is common, fatal and needs early diagnosis, but they should also be targeting those of African heritage.

Provided by British Medical Journal