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Friday 01 October 2010

Dengue lands in Europe

First locally acquired infections in south-east France follow rise in imported cases



Female *Aedes albopictus* mosquito feeding on a human host.

Image credit:
CDC/James Gathany

This month health authorities in the city of Nice detected the first cases of locally acquired dengue fever to be reported anywhere in Europe. The emergence is linked to a surge of the disease in overseas French territories, write Guy La Ruche and colleagues this week in *Eurosurveillance*.

In the first 4.5 months of this year, 120 cases of the mosquito-borne disease were detected in visitors to France — 11 times higher than the number of imported cases seen in the whole of last year.

“This increase in imported cases is mostly related to the ongoing epidemics [of dengue fever] in the French West Indies, Martinique and Guadeloupe, since the beginning of 2010,” write La Ruche and colleagues from French institutions and the European Centre for Disease Prevention and Control.

The report comes just months after the **re-emergence of dengue fever in the USA**, where travel from endemic countries was also cited as a factor fuelling spread of the mosquito-borne disease.

French authorities have stepped up their public health response with efforts to identify more cases of dengue fever, protect vulnerable people, control mosquito vectors in the affected area, and watch for any signs of toxicity following the widespread use of insecticides.

Just two people are known to have contracted the disease so far. A man in his 60s who was hospitalised with symptoms of dengue in late August was the first case detected by health authorities. He had been hosting friends from the West Indies for several months, and lived within 200 metres of another person who had returned from travel to Martinique within the month before he fell ill.

Investigators looking into the incident tracked down nine more suspected cases as of 24 September, according to the report, and laboratory tests confirmed infection with the virus for one of them — an 18-year-old man who lived about 70 metres away from the first case and had no history of travel.

“The identification of two autochthonous cases of dengue fever which are clustered in space and time is strongly suggestive that a local transmission of dengue virus is ongoing,” write the authors. They expect that more cases of the disease will surface in Nice as the investigation continues.

La Ruche and colleagues say the incident is “not entirely unexpected” because *Aedes albopictus* mosquitoes that can carry the dengue virus have been established in France and other European countries for several years. The recent outbreak of chikungunya fever in Italy, a disease spread by the same mosquito, “has shown that non-endemic arboviruses can be efficiently transmitted in continental Europe”.

According to the report, the risk that dengue will take hold in Nice or elsewhere in Europe is “limited” but should be re-assessed as more data become available.

The authors also raise a cautionary note over the safety of blood supplies, pointing to rare cases of disease spread through transfusions when infected people had donated blood while not showing symptoms of the illness. “As dengue infection is mild or asymptomatic in 40–80% of infected persons... it does pose a risk to blood safety.” Though difficult to quantify, the risk is considered to be low, they say.

Reference and link

1. La Ruche G, Souarès Y, Armengaud A, Peloux-Petiot F, Delaunay P, Desprès P, *et al*. First two autochthonous dengue virus infections in metropolitan France, September 2010. *Euro Surveill* 2010, **15**:19676. [Article](#)

[European Centre for Disease Prevention and Control information](#) on dengue fever

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