d Dengue infection in returned travellers

Dengue is not endemic in South Africa. However, dengue is occasionally diagnosed amongst travellers returning from dengue endemic regions such as South-East Asia, the Western Pacific, the Americas (Central and the northern parts of South America), Central, West and East Africa and the Eastern Mediterranean. In December 2016, acute dengue infection was confirmed in two travellers returning to South Africa from Singapore and Thailand.

The first case was in a 42-year-old man, who was admitted to a hospital in Gauteng Province. He became ill after travelling to Singapore in mid-December 2016. He presented with a skin rash and influenza-like illness. Malaria infection was unlikely as Singapore is malaria free—however it was excluded on smear microscopy. RT-PCR for Zika virus was negative. Serology (IgM) and RT-PCR for dengue were both positive and the virus was successfully isolated from the patient's serum by tissue culture, confirming an acute dengue infection.

The second case was a 20-year-old female from KwaZulu-Natal Province who returned from Thailand on 22 December 2016 after a 10-day visit. She presented with fever, weakness, headache and vomiting. Malaria smear microscopy was negative. Blood taken on the day of presentation to hospital (22 December 2016) tested positive by RT-PCR for dengue virus and the virus was successfully isolated from the patient's serum by tissue culture, confirming an acute dengue infection.

The typical clinical presentation of uncomplicated dengue includes fever, severe headache, pain behind the eyes, muscle and joint pains, nausea, vomiting, swollen glands and a maculopapular rash. The differential diagnosis includes malaria, hepatitis A, typhoid, invasive bacterial diarrhoea. When a rash is present, the differential includes dengue, Zika, chikungunya or rickettsial infections. RT-PCR is usually positive for dengue virus 1 to 2 days following infection and up to 9 days after disease onset. Antibodies to the dengue virus may be detected by day 3 – 7 after symptom onset. Convalescent sera will demonstrate seroconversion. For further information see the NICD website, www.nicd.ac.za

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