

Atypical presentation of dengue infection in a nonagenarian

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Case report

A 93 year old lady was admitted to the National University Hospital, Singapore for 3 days of decreased appetite and lethargy with some phlegm but no cough or fever. She had no history of any headache, rash or arthralgia.

Her past medical history included advanced dementia, ischaemic heart disease, chronic kidney disease, atrial fibrillation and previous left hip fracture. Premorbidly, she was assisted in activities of daily living and was able to ambulate short distances with assistance using a walking frame.

On examination the patient was dehydrated and drowsy. She had mild basal crepitations but systemic review was otherwise unremarkable. Laboratory investigations revealed elevated creatinine and urea. Total leucocyte count and liver function test were normal. Platelet count was $161 \times 10^9/L$. Chest radiograph showed mild lower zone infiltrates. The patient was initially treated with intravenous Augmentin and fluids for delirium due to a presumptive chest infection.

Over the next 3 days, the patient's platelet count dropped from $135 \times 10^9/L$ to $103 \times 10^9/L$ (reference range: $164-387 \times 10^9/L$). The initial drop was presumed to be secondary to sepsis, however as the platelet count continued to drop with no apparent cause, dengue serology was sent off on Day 4 of admission. Dengue Immunoglobulin-G (IgG) and non-structural protein 1 (NS-1) were negative but dengue immunoglobulin-M (IgM) was positive. There was no associated leukopenia, elevated haematocrit or transaminitis. Her platelet count dropped to a nadir of $96 \times 10^9/L$ on day 5 of admission and normalised subsequently. Throughout her admission, the patient did not mount a fever and had no rash. After the diagnosis of dengue infection, the antibiotics was stopped and the patient recovered but sustained some functional decline.

Discussion and conclusion

Dengue infection is an arboviral infection transmitted by the *Aedes* genus of mosquito. It is endemic in more than 100 countries, particularly tropical regions such as Southeast Asia [1], where Singapore is situated. Dengue infection commonly presents with

fever, retro-orbital headache, myalgia, arthralgia with subsequent rashes, leucopenia, thrombocytopenia and increased liver function [2]. The platelet count usually reaches its nadir by day 5-7 of the illness [3]. Early identification is important as the mainstay of management is fluid therapy and identification of the critical phase [4]. The elderly are known to present atypically. Our patient did not present with any typical features of dengue infection and did not mount a fever throughout. Her thrombocytopenia was mild and could have easily been attributed to sepsis. A high index of suspicion for alternative diagnoses must be maintained even in the elderly. An early diagnosis of dengue would lead to proper management such as adequate fluid resuscitation being instituted and the avoidance of unnecessary antibiotic use.

References

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