



Infectious endocarditis with jump rope-like vegetations

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An 87-year-old man presented to our hospital with a history of generalized malaise since 2 days. On physical examination, his blood pressure was 80/42 mmHg, pulse rate was 102 beats/min, and temperature was 36.3 °C. He was alert and oriented, with petechiae over bilateral palpebral conjunctivae. His breath sounds were normal. There was no audible cardiac murmur. Epidermolysis was observed on the extremities. The following day, two sets of blood culture obtained on admission showed Gram-positive cocci in clusters. Transthoracic echocardiography revealed massive mitral valve vegetations, appearing similar to a jump rope, extending from the anterior leaflet to the posterior leaflet, without mitral regurgitation (Fig. 1, Video). He was definitively diagnosed with infectious endocarditis (IE) without any evidence of metastatic infection on computed tomography. Administration of cefazolin

and vancomycin was initiated immediately after positive blood cultures; however, heart rate and level of consciousness progressively decreased, with death occurring on the same day. His family did not agree for an autopsy, and the primary reason for his death was not clear. Later, the pathogen was identified as methicillin-susceptible *Staphylococcus aureus*.

The number of elderly IE patients is increasing, and often, the causative organism is *Staphylococcus aureus* [1, 2]. In elderly IE patients, the vegetations have been reported to be small [3, 4], and often difficult to be visualized on echocardiography, owing to valvar calcification. The present case demonstrated cardiac mitral valve vegetations with a jump rope-like shape that has not yet been reported.

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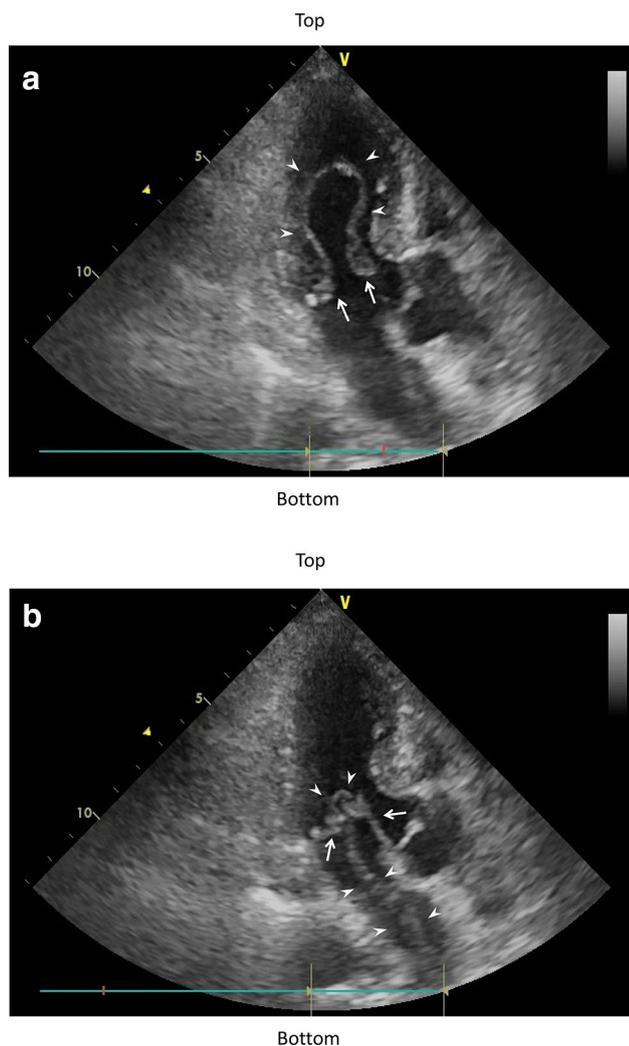


Fig. 1 **a, b** Transthoracic echocardiography showing massive mitral valve vegetations (arrowheads), extending from the anterior leaflet to the posterior leaflet (arrows)

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Compliance with ethical standards

Conflict of interest The authors declare that they have no competing interest.

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