

# Face the truth: a 76-year-old man with chronic heart failure of unknown origin

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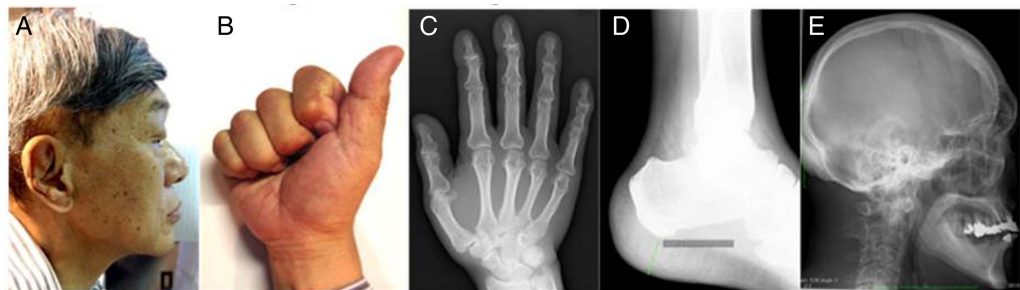
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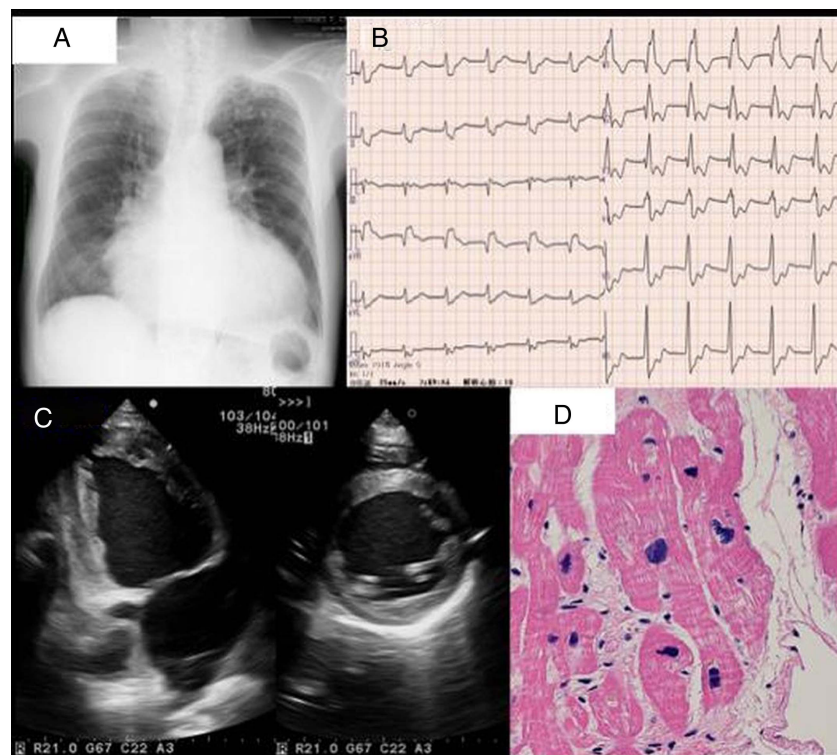
## DESCRIPTION

A 76-year-old Japanese man with a 7-year history of systolic heart failure was referred to our hospital reporting of progressive dyspnoea on exertion for 3 months. Numerous tests performed at the previous cardiology hospital, including myocardial

biopsy and coronary angiography, could not provide a definitive diagnosis. A resident in charge of inpatient care, while greeting him at the beginning of physical examination, noticed that the patient had prominent forehead and anterior mandibular protrusion (figure 1). The resident also felt



**Figure 1** The pictures of physical and clinical findings: (A) prominent forehead and anterior mandibular protrusion; (B) negative 'fist sign', which was suggested by a Japanese medical hypothesis describing incomplete fist clenching in some patients with acromegaly; (C) the X-ray of hands showing uveal tufting, widening of the bases of distal phalanges and soft tissue hypertrophy; (D) feet X-ray showing an increased heel pad thickness of 26 mm and (E) skull lateral X-ray showing ballooning of sella turcica.



**Figure 2** Cardiac examinations: (A) chest X-ray showing cardiomegaly with fine calcifications at the apical portion of the left lung; (B) electrocardiography showing accelerated atrioventricular junctional rhythm and complete right bundle branch block; (C) echocardiography showing increased thickness of ventricular wall and (D) microscopic examination of cardiac muscle suggests myocellular enlargement.



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that the hands had soft tissue enlargement during hand shaking with him. His height was 172 cm and weight 67 kg. The BP was 97/63 mm Hg, pulse 77/min, respiration 16/min and temperature 36.7°C. Heart sound was regular and there were S3 and systolic regurgitant murmur. Lung auscultation revealed bilateral late-inspiratory crackles. Bilateral oedema and spade hands were observed, but fist sign was negative. Visual field was normal. The hands, feet and skull X-ray showed soft tissue enlargement with a heel pad thickness of 26 mm and ballooning of sella

turcica. Re-examination of myocardial biopsy was performed, showing enlargement of myocardial muscle cells (figure 2). Serum concentration of growth hormone was 47.7 ng/mL (normal <2.5 ng/mL) with insulin-like growth factor (IGF)-1 204 ng/mL (normal 50–180 ng/mL for his age) and the brain MRI revealed pituitary tumour. Cabergoline therapy was initiated. Simple greeting and hand shaking can lead to immediate diagnosis of acromegaly, which is a potentially reversible cause of cardiomyopathy.<sup>1 2</sup> The face told us the true diagnosis.

### Learning points

- ▶ A highly specific physical finding may tell us a definitive diagnosis in undiagnosed diseases.
- ▶ Watching the face during greeting and feeling the soft tissue thickness during shaking hands should be included as an important component of physical examination.
- ▶ Acromegaly is one of the reversible causes of secondary cardiomyopathy.<sup>1 2</sup>

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**Contributors** TS and YT attended to the patient and wrote the case report.

**Competing interests** None.

**Patient consent** Obtained.

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