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A large pericardial effusion without haemodynamic compromise

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A 54-year-old woman reported persistent dyspnoea 2 months after aortic valve replacement for severe aortic stenosis. Physical examination was normal without a visible jugular venous pulse and her blood pressure was 114/71 mmHg. Chest radiography (Figures 1a and b) demonstrated significant enlargement of the cardiac silhouette. Electrocardiography showed partial left bundle–branch block (Figure 1c). Transthoracic echocardiography (Video 1 hmed.2021.0424_im_med_effusion_video_1.mp4) revealed a hyper-dynamic 'swinging heart' within a very large global pericardial effusion, measuring 7 cm maximally. Pericardiocentesis drained 2.5 litres of straw-coloured fluid in total.

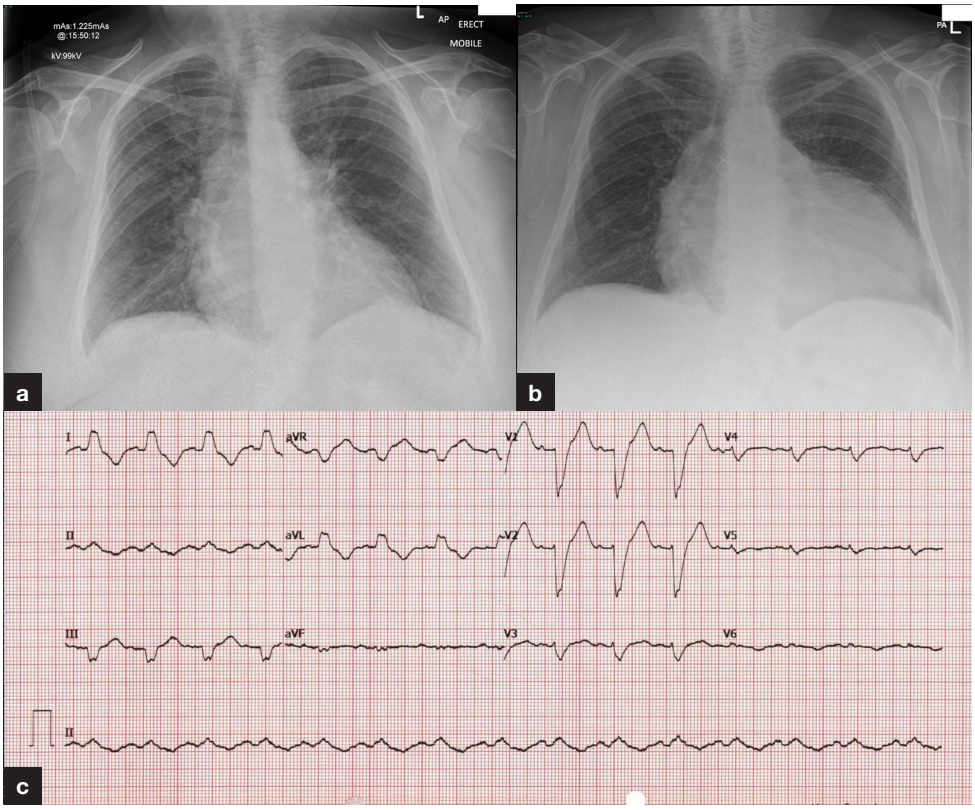

Figure 1. a. Chest X-ray taken before aortic valve replacement and (b) 2 months later following re-admission demonstrating significant enlargement of the cardiac silhouette. c. Admission electrocardiogram showing normal sinus rhythm with a partial left bundle–branch block.

While large pericardial effusions may generate tamponade physiology – muffled heart sounds, hypotension and raised jugular venous pulse (Beck's triad) (Jung, 2012) – none of these features were present in this patient. Similarly, electrocardiogram hallmarks including low-voltage QRS complexes and electrical alternans were absent.

This case highlights that a large volume pericardial effusion may accumulate insidiously without features of haemodynamic compromise. Echocardiography can facilitate diagnosis and thus guide timely therapeutic intervention (Spodick, 2003).

Video 1. Transthoracic echocardiogram demonstrating a 'swinging heart' within a large pericardial effusion.

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References

Jung HO. Pericardial effusion and pericardiocentesis: role of echocardiography. Korean Circ J. 2012;42(11):725–734. https://doi.org/10.4070/kcj.2012.42.11.725

Spodick DH. Acute cardiac tamponade. N Engl J Med. 2003;349(7):684–690. https://doi.org/10.1056/NEJMra022643