

Undiagnosed severe aortic stenosis with associated valvular thrombus

presenting for elective Caesarean delivery

K Brosnan, G Browne, L Byrne, P Thornton, T Drew

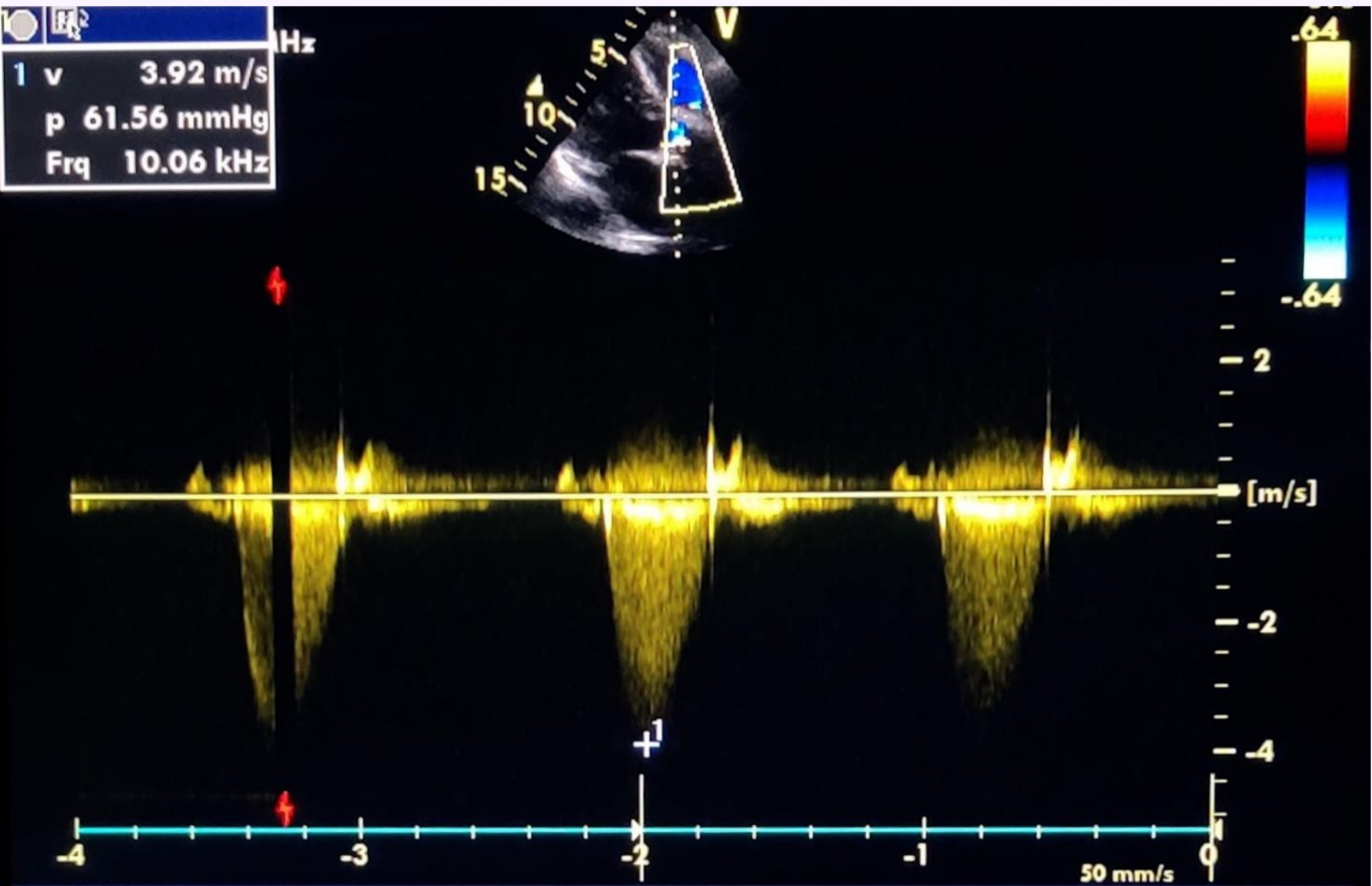


Case Report

- A 40-year-old G2P1 lady presented for elective caesarean delivery (LSCS) at 34 weeks gestation on a background history of Marfan syndrome.
- Surgical history included a re-do aortic root replacement and aortic valve replacement with a bioprosthesis performed in 2015.
- Both prior to and during her pregnancy, she had no cardiovascular symptoms and an excellent exercise tolerance.
- Transthoracic Echocardiography (TTE) at 17 weeks gestation showed good Left Ventricular (LV) systolic function, mild aortic stenosis with peak Doppler velocity across the aortic valve (AVmax) of 3.1 m/s and mean gradient of 36 mmHg.
- Bedside TTE on the morning of LSCS, demonstrated a significant change in the aortic valve with AVmax of 3.9 m/sec (mean gradient of 61mmHg) suggestive of severe aortic stenosis.

Intra-operative management

- Combined spinal epidural (CSE) with 5.5mg hyperbaric bupivacaine, fentanyl 20mcg, morphine sulphate (preservative free) 100mcg.
- Subsequent judicious epidural top-up with 5mls Lidocaine 2% to facilitate T4 sensory block bilaterally.
- Haemodynamically stable intra-operatively and uterine atony was managed with administration of carbetocin 100mcg by slow infusion.
- HDU care with invasive blood pressure monitoring for 24 hours.
- Day 2 post-operatively, cardiology review and formal TOE confirmed moderate-severe aortic stenosis with possible associated thrombus over the aortic valve.
- Therapeutic LMWH was commenced, with the plan for further cardiology review in 1 month.



Discussion

- Aortic prosthetic valves during pregnancy are significant risk factors for thrombo-embolic complications.(1)
- In this cohort of women, cardiac disease can evolve rapidly during the third trimester.
- This case demonstrates the benefit of day-of-surgery TTE.
- Caesarean delivery under regional anaesthesia may be performed safely in women with severe aortic stenosis.(2)

References

1. Sillesen M, Hjortdal V, Vejstrup N, Sorensen K. Pregnancy with prosthetic heart valves - 30 years' nationwide experience in Denmark. Eur J Cardiothorac Surg. 2011;40(2):448-54.
2. Ioscovich AM, Goldszmidt E, Fadeev AV, Grisaru-Granovsky S, Halpern SH. Peripartum anesthetic management of patients with aortic valve stenosis: a retrospective study and literature review. Int J Obstet Anesth. 2009;18(4):379-86.