Prenatal imaging and postnatal imaging of a right ventricular diverticulum

Congenital cardiac diverticula are transmural localised protrusions within the free wall of the ventricles; diverticula of the right ventricle were rare with an incidence of 0.6%.[1] Differential diagnosis consisted of an epicardial cyst or ventricular aneurysm. Diverticula have normal or near-normal contractile pattern compared with aneurysms and pseudoaneurysms that were akinetic outpouching or dyskinetic outpouching.[2] Right ventricular diverticula (RVD) are rarely diagnosed during the fetal period, and due to their rarity, their natural history remains unclear. RVD (arrow) were diagnosed at 21 weeks of gestation and followed up during pregnancy; there was a contracting outpouching from the antero-inferior wall of the right ventricle with a broad communication to the corresponding chamber, visualised on fetal echo (figure 1A–C). Abdominal situs and cardiac connections were normal; no extracardiac abnormalities were present. The fetus did well during pregnancy and was born spontaneously at term. The RVD were visualised after birth by 2D-echo (figure 2A) and cardiac-MRI (figure 2B, C).

If the right ventricular diverticulum is composed of uniform thick contractile walls, anticoagulation is not necessary and conservative follow-up care likely is appropriate; surgery may only be necessary if the diverticulum has thin walls with an increased risk of rupture.

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REFERENCES

1 Nakazono T, Jeudy J, White CS. Left and right ventricular diverticula: incidence and imaging findings on 256-slice multidetector computed tomography. *J Thorac Imaging* 2012;27:179–83.
2 Sattiraju S, Ayenew W, Punjabic G, *et al*. Right ventricular diverticulum. *Eur J Echocardiogr* 2011;12:881.

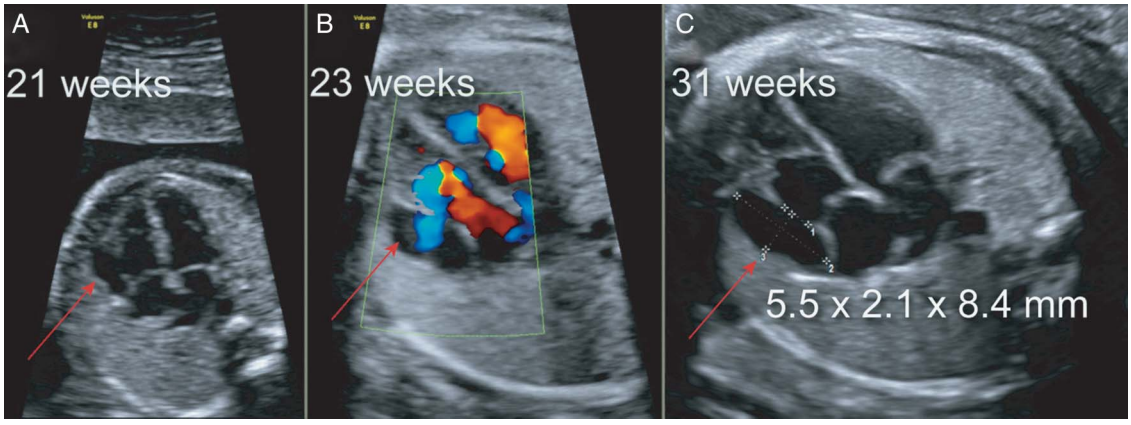

Figure 1 Prenatal 2D-echo imaging of the RV-diverticulum (arrow) at 21 weeks (A), 23 weeks (B) and 31 weeks (C) of gestation.

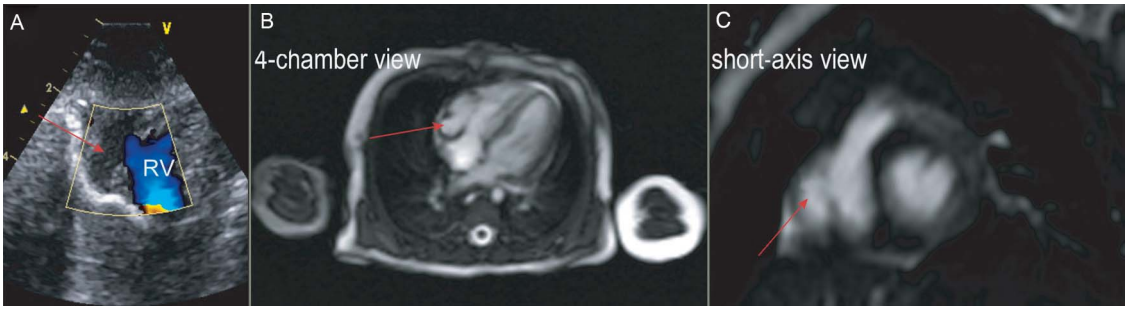

Figure 2 Postnatal imaging of the RV-diverticulum (arrow) on 2D-echo (A) and on cardiac-MRI 4-chamber view (B) and short-axis view (C).