

An enlarged heart on Nigerian immigration chest x-ray

Dr Obianeli CJ: Senior Clinical Fellow Department of Obstetrics & Gynaecology, Royal Wolverhampton Trust (New Cross Hospital)

Dr Banerjee SO: Senior Clinical Fellow Department of Obstetrics & Gynaecology, Royal Wolverhampton Trust (New Cross Hospital)

Dr Morse LS: Consultant Obstetrician/Maternal Medicine, Department of Obstetrics & Gynaecology, Royal Wolverhampton Trust (New Cross Hospital)

Abstract

Objective – Maternal mortality rates are more than four times higher for Black women and migrant women are at high risk of poorer pregnancy outcomes. There should be a low threshold for investigating these women where they present with vague cardiac history or symptoms.

Case Report

A 28 year old primigravida was seen in the antenatal clinic giving a history of an ‘enlarged heart’ on chest X-ray for immigration purposes. She was well and denied any cardiac symptoms. A TTE in pregnancy revealed right ventricular enlargement with features suggestive of mild pulmonary hypertension and was managed by the obstetric cardiology MDT. Upon review by the tertiary referral centre, the echo suggested more severe pulmonary hypertension, abnormal ECG (right bundle branch block and ST depression in V1-4) and new onset shortness of breath. She was commenced on pulmonary vasodilator treatment and further referred to Sheffield Pulmonary Vascular Disease Unit. She had successful delivery by elective caesarean section at 36 weeks. A diagnosis of pulmonary hypertension secondary to sinus venosus ASD (SVASD) with right upper pulmonary vein draining into the SVC. She has since had surgical repair with bovine pericardial patch and is currently pregnant with her second child.

Discussion

Sinus venosus atrial septal defect (SVASD) is a rare adult congenital cardiac disorder commonly associated with anomalous pulmonary vein drainage. This permits shunting of blood from the systemic circulation to the pulmonary circulation, creating right heart volume overload, enlargement and pulmonary hypertension. Depending on the size, most adults may remain asymptomatic till third decade of life for defects within 10mm, which may explain our patient’s preserved cardiac function during pregnancy. Pregnancies complicated by pulmonary hypertension carry a high risk of maternal mortality, early diagnosis, referral to a tertiary hospital and a multidisciplinary approach ensure the best possible outcome.

Conclusion

This case demonstrates the importance of having a low threshold for investigation high in black immigrant women, particularly where they present with vague cardiac history or symptoms. An obstetric cardiology service with urgent access to cardiac investigations and networks with a tertiary centre have ensured safe and rapid management of this woman.