An Atypical Prenatally-Detected Chest Mass Simulating Postnatal Cardiomegaly

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Case Report

A 29 year old, Garvida 2 Para 1001, BMI 36.6, had had an uncomplicated prenatal course. First trimester scan was normal with an NT of 1.4 mm at 11w5d. Second trimester genetic scan was also normal. During routine third trimester follow up for fetal growth at 34w3d there was appropriate interval growth and a normal amniotic fluid index. However a well circumscribed central to right-sided pericardiac mass was noted measuring 26.5 x 12.1 mm (Figure 1). There was no feeding vessel or any notable flow on color Doppler. It seemed to move with the beating heart. There was no pericardial or pleural effusion. The mass extended from the level of the 4 chamber view to the level of the 3 vessel view in the location of the thymus where it measured 46.1 x 21 mm (Figure 2) which is > 95th centile for the thymus at this gestational age. There was no sign of a congenital diaphragmatic hernia. The heart had normal situs, normal axis, and normal symmetrical 4 chambers with normal outflow tracts. Both atrioventricular and semilunar valves were normal. There was no evidence of any regurgitation. In addition, 2 pulmonary veins were seen entering the left atrium and the sagittal views for the great arteries as well as the bicaval views were all normal. The mass did not have the appearance of neither a rhabdomyoma nor CCAM. The differential diagnosis included pulmonary sequestration, a thymoma or an enlarged thymus. Consultation with pediatric cardiology confirmed the findings. The patient delivered a live born male at 38w1d weighing 3560 grams. Postnatal echocardiography confirmed the prenatal findings of a normal fetal heart and a prominent enlarged thymus which on chest X-ray simulated cardiomegaly (Figure 3).

Our case demonstrates that though it is an unusual prenatal finding, an enlarged thymus may mimic a chest mass. It is more common for it to be diagnosed postnatally by cardiologists to whom neonates are referred for cardiomegaly noted on a postnatal chest X-ray. The enlarged thymus more commonly presents as postnatal pseudo-cardiomegaly. Care must be taken to avoid undue parental anxiety by a thorough evaluation pre- and postnatally.

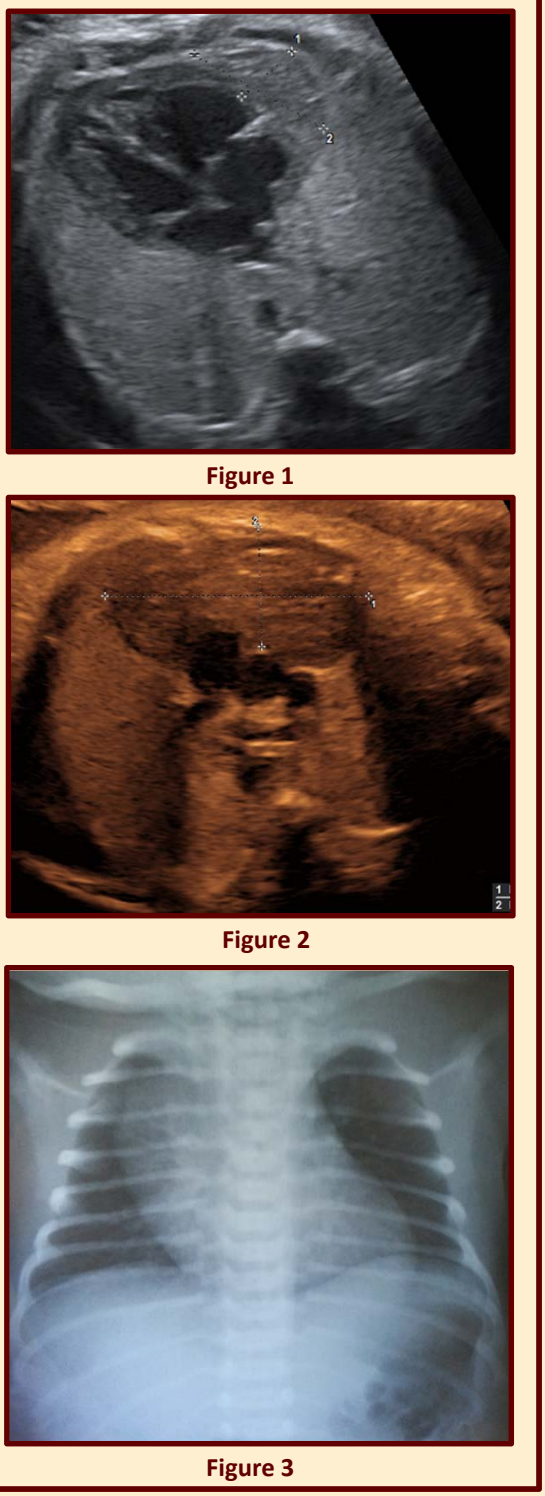

Figure 1

Figure 2

Figure 3