Right aortic arch with aberrant left subclavian artery, "a vascular ring surrounding the trachea".

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OBJECTIVE

To emphasize the importance of **prenatal echocardiographic screenning**, specifically the cutting of the 3 vessels and the trachea within the planes described by Yagel, in order to detect most **congenital heart anomalies** and potentially serious syndromes, both at birth and in adult life, such as those associated with the presence of right aortic arch (RAA).

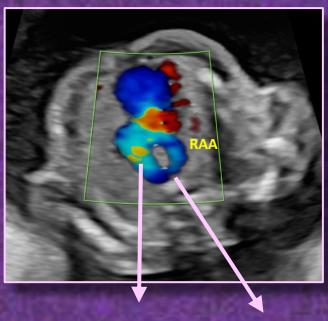
METHODS

We present a case of right aortic arch associated with aberrant left subclavian artery (ALSA) diagnosed at **20 weeks echocardiographic screenning**, by obtaining the **5 planes** described by **Yagel** and subsequently performing all the **genetic studies** necessary in these cases to rule out possible associated syndromes such as **22q11.2 microdeletion (DiGeorge syndrome).**

RESULTS

A 21-week pregnant woman attended for her routine 20-week ultrasound screnning. No other medical or surgical history of interest. The echocardiographic study showed situs solitus, levoapex and levocardia, a normal four-chamber section and outflow of large vessels without alterations, but it was not possible to visualize a normal 3-vessel tracheal section, **showing a vascular ring surrounding the trachea entirely**, which led to suspicion of a right aortic arch with an aberrant left subclavian artery **(Images below).**

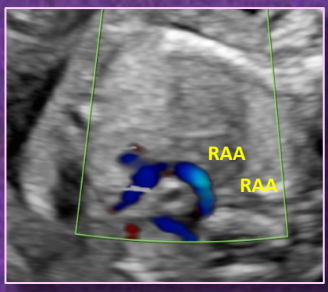
Amniocentesis: karyotype were normal: XY, with also normal results for chromosomes 13, 18 and 21. Later the result of **the ARRAYs** confirmed **the absence** of other genetic alterations such as DiGeorge syndrome.



DIAGNOSIS

Inability to visualize correctly the section of 3 vessels and the trachea.

The aortic arch passes to the rigth of trachea forming a vascular ring.



CONCLUSIONS

The importance of **three-vessel cut and the trachea** in routine study to rule out malformations with potential morbidity and mortality.

RAA may cause respiratory and digestive problems in the future or the development of an aneurysm in Kommerell's diverticulum in cases where RAA is associated with ALSA.

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3. Yagel, S., Cohen, S. M. & Achiron, R. Examination of the fetal heart by five short-axis views: a proposed screening method for comprehensive cardiac evaluation. *Ultrasound Obstet. Gynecol.* **17**, 367–369 (2001).