

## **Situs inversus with levocardia (viscero cardiac heterotaxy) with complex congenital heart defect in an IVF ICSI conception**

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### **Objective**

This is a case of an IVF ICSI conception with donor ovum, detected to have viscero-cardiac heterotaxy with d-TGA detected at 18 weeks. The objective is to highlight the importance of fetal echocardiogram in IVF ICSI patients and screen in the first trimester as well.

### **Methods**

Case report.

### **Results**

31 year old, G2P0A1 with IVF ICSI conception with donor ovum booked with us for her antenatal care. Besides a low BMI and premature ovarian failure, there were no other medical concerns. Her first trimester combined screen was reported low risk. At her 18 weeks anomaly scan, viscero-cardiac heterotaxy (levocardia, right sided stomach and left sided liver and gall bladder) with minimal thoracic scoliosis due to hemi vertebra was detected. On detailed fetal echocardiography, she was found to have levocardia, d-transposition of the great arteries with inlet VSD, pulmonary stenosis, right aortic arch and normal rhythm. Both the atria appeared to have the left atrial morphology. We revisited the images of the scan at 11-13<sup>+6</sup> weeks and were able to detect the stomach presence on the right side. Counselling by the paediatric cardiologist and fetal medicine specialist was done. The couple opted for termination of pregnancy at 20 weeks. The CMA 715 k was reported normal. The autopsy findings confirmed the complex heart defect along with the situs inversus of the abdominal viscera and the lungs( right lung with two and left lung with three lobes), though no splenic or bowel abnormalities were seen. Note was also made of a long philtrum and thin upper lip in the male fetus. The couple declined further whole genome sequencing.

### **Conclusion**

The case highlights the importance of 1. Fetal echocardiography in IVF –ICSI conception 2. First trimester assessment of the fetal heart preferably by TVS keeping a high index of suspicion in IVF ICSI patients.