The Sonograms and Autopsy Data of 3 Cases of Fetal Right Atrial Isomerism and Literature Analysis

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Objective
Analysis sonograms feature of cardiovascular malformation and its associated anomalies in fetus with right atrial isomerism.

Methods
The sonograms and autopsy data of 3 cases found in 256 pregnant women and 676 cases found in literature with right atrial isomerism which confirmed by angiocardiography, autopsy, and surgical operation were analyzed retrospectively.

Results
1. In our 3 cases, the stomach and gallbladder were all located on the right side, asplenia.
2. Associated anomalies included right valve atresia, single ventricle, single atrium, complete atrioventricular septal defect, double outlet of right ventricle, right aortic arch, pulmonary artery stenosis, total anomalous pulmonary venous connections, etc.
3. In 284 cases, the median of liver (97%), asplenia (91.1%), abdominal aorta and inferior vena cava located in the same side of spine (93.6%), bilateral trilobites lung (87.9%), bilateral right bronchial (100%), were the main abnormalities outside the heart.

Conclusion
1. Right atrial isomerism was combined complex cardiac anomalies, short-term and long-term prognosis were not optimistic.
2. They always accompanied the median of liver, asplenia, abdominal aorta and inferior vena cava located in the same side of spine, anomalous pulmonary venous connection, etc.
3. Prenatal ultrasound was effective method for diagnosis of the fetus with right atrial isomerism.