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Objective

- 1) Determine the prevalence of fetal left ventricular echogenic intracardiac focus (LVEIF) in early anatomy scan (14-17 weeks of gestation);
- 2) Compare pregnancy outcomes for fetuses with and without a LVEIF.

Methods

A retrospective cohort study was conducted, with a study population of pregnant women that underwent an early anatomy scan (14-17 gestational weeks). We compared pregnancy outcomes for those with LVEIF and a matched control group of pregnancies with a normal scan.

Results

A total of 2375 pregnant women underwent anatomy scan between 14-17 weeks of gestation. The prevalence of LVEIF was 6.2% (148 pregnancies). A comparative analysis was held between these and 148 matched cases without LVEIF serving as the control group.

There were no significant differences in the maternal and pregnancy characteristics and obstetric complications between pregnancies with and without LVEIF.

There was a significantly ($p=0.027$) increased proportion of males in the LVEIF group (59.2%) compared to the non-LVEIF group (45.9 %).

There was a higher rate of echocardiography scans performed in the LVEIF group (35.8%) compared to the non-LVEIF group (12.8%) ($p\text{-value} < 0.0001$). In 42% of cases the LVEIF was also detected in the second anatomy scan (19-25 weeks of gestation). Additionally, all amniocentesis genetic results were normal (16 patients), and no other structural or genetic abnormalities were identified.

Conclusion

Although the presence of LVEIF is typically considered a benign finding, this diagnosis often leads to an increased maternal anxiety and a higher rate of follow-up testing, including fetal echocardiography and amniocentesis. Notably, our study found no structural defects or genetic disorders in the group with early isolated LVEIF detection, suggesting that the clinical significance of this soft marker remains limited. This study gives additional tools for the obstetrician when counselling patients with isolated LVEIF on early anatomy scan.