Early Fetal Echo Detects Most Cardiac Lesions

The technique has limitations, so reserve early echocardiography for cases at the greatest risk.

BY ROBERT FINN
San Francisco Bureau

RENO, NEV. — Fetal echocardiography before 16 weeks of gestation is feasible and can detect a substantial proportion of cardiac lesions, investigators reported in a poster presentation at the annual meeting of the Society for Maternal-Fetal Medicine.

The technique does have limitations regarding accurate visualization of the great artery relationship and the crux of the heart. It may therefore be best to reserve early echocardiography for cases at the greatest risk for cardiac defects, as judged by increased nuchal translucency and the presence of extracardiac lesions. Second-trimester echocardiograms remain the gold standard, concluded Fionnuala McAuliffe, M.D., of University College Dublin, Ireland, and colleagues.

The study involved 160 fetal echocardiograms performed before the 16th week, with an average gestation time of 13.5 weeks. Investigators used the transabdominal approach for 100 cases, and the transvaginal approach in 60 cases in which the transabdominal approach yielded poor visualization.

Of the 160 patients, 100 were referred because of nuchal translucency greater than the 95th percentile, 51 because of a family history of congenital cardiac defects, and 9 because of the presence of extracardiac lesions.

Adequate cardiac examinations were possible in 132 cases, and pregnancy outcome was available in 137 cases. Of those, there were 20 cardiac defects. Fourteen (70%) showed an abnormality on the early echocardiogram, and 6 (30%) were passed as normal.

The early echocardiogram identified two cases of ectopia cordis, two cases of atrioventricular septal defect, two cases of hypoplastic left heart syndrome, two cases of ventricular septal defect, two cases of left atrial isomerism, two cases of hypoplastic right ventricle, and one case each of double outlet right ventricle and cardiac diverticulum.

On the other hand, the early echocardiogram failed to detect three cases of ventricular septal defect, two cases of dextro-looped transposition of the great arteries, and one case of hypertrophic cardiomyopathy. The aorta and pulmonary artery 95% of the time, and the inferior and superior vena cava 76% of the time.

Early fetal echocardiography was less effective in visualizing the aortic and ductal arches (45% of the time), brachial pulmonary arteries (53% of the time), and pulmonary veins (19% of the time).

Better Pregnancy Outcomes Seen With Elective Cerclage

BY DEEANNA FRANKLIN
Senior Writer

WASHINGTON — Patients who received emergent cerclage had higher rates of premature births, spontaneous premature rupture of membranes, and chorioamnionitis, compared with those receiving elective cerclage, Chi P. Dola, M.D., reported in a poster presentation at the annual meeting of District VII of the American College of Obstetricians and Gynecologists.

Dr. Dola, of Tulane University, New Orleans, and her colleagues performed a retrospective chart review of data from 140 pregnant women who presented with an asymptomatic cervix.

The women were separated into three groups: 91 asymptomatic patients who received an elective cerclage based on a history suggestive of cervical incompetence; 29 asymptomatic patients who received an urgent cerclage after an ultrasound exam brought to light an abnormal finding, and 20 patients who received an emergent cerclage after presenting with typical symptoms of cervical incompetence.

The percentage of patients whose pregnancy lasted more than 36 weeks was the highest, at 73%, in those who received an elective cerclage, followed by 62% in the asymptomatic patients who received urgent cerclage and 21% in the symptomatic patients who had an urgent cerclage.

Spontaneous premature rupture of membranes was 21% in the asymptomatic patients who received elective cerclage, versus 40% and 71% in the other two groups, respectively.

The incidence of chorioamnionitis was only 2% in the asymptomatic patients who received elective cerclage, compared with 9% and 50% in the other two groups, respectively.

All differences between groups were significant.

The researchers’ findings show that patients with urgent cerclages had poor outcomes compared with those receiving elective cerclage. This finding led the researchers to conclude “that by awaiting abnormal cervical findings on ultrasound exam prior to placement of an urgent cerclage, the potential for poor pregnancy outcomes increases.”