

# Ultrasound screening for fetal anomalies

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<b>Abstract</b> <p>We studied the prenatal detection rate of various malformations during a study period of 16 years in a population in southern Sweden consisting of 141 240 deliveries. The overall detection rate was 28.4% and the false positive diagnoses were very few.</p> <p>We studied the effect of prenatal diagnosis on the rate of spina bifida in southern Sweden compared with the rest of the country and could show that the rate of spina bifida at birth has decreased. This decrease was seen earlier and was steeper in the study area compared with the rest of the country. The decrease is probably an effect of prenatal diagnosis.</p> <p>The effect of prenatal diagnosis of cardiac defects was studied during years 1999-2003 in the South Health Care Region. The detection rate of major cardiac defects was higher in the university hospitals than in other hospitals in the area. We could not confirm that the prognosis or outcome of children with cardiac defects was better if the defect was diagnosed prenatally compared with those diagnosed postnatally.</p> <p>We studied how the postponement of expected day of delivery by at least one week at the second trimester ultrasound scan affects the prognosis for the newborn. The risk for congenital malformations and the risk for growth restriction later in pregnancy are increased for pregnancies with the dates postponed. This is probably due to an early growth retardation already in the second trimester when the routine scan is made.</p> <p>The complications of amniocenteses performed in gestational weeks 12, 13, and 14 were studied. The risk for miscarriage and leakage of amniotic fluid decreased with increasing gestational week. There was a significantly increased risk for foot deformities if amniocentesis was performed before 14 gestational weeks.</p> <p><b>Conclusions:</b> The detection rate of some types of malformations e.g. cardiac defects and spina bifida increased during the studied period. There were differences in the detection rates of these malformations between the study region and rest of the country (for spina bifida) and between different types of hospitals in the study area (for cardiac defects). This is probably due to differences in education and experience of the personnel and quality of the ultrasound equipment.</p>			
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