Evaluation of Routine Obstetric Ultrasound Examination in detecting Fetal Structural Abnormalities in Low Risk Pregnancies

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Objective:
To evaluate routine obstetric ultrasound examination in detecting fetal structural abnormalities in low risk pregnancies.

Method:
A prospective study of the results of routine obstetric ultrasound examination during the first 19 months after the introduction of this service in a local teaching hospital was performed.

Results:
3288 women had routine ultrasound examination. Pregnancy outcome could be traced in 3187 women. Fetal ultrasound abnormalities were suspected in 73 cases (2.3%). Follow-up scans showed the same abnormalities in 26 cases (0.8%). These were confirmed after delivery or abortion in 21 cases (0.7%). The most common fetal abnormality detected by routine ultrasound was dilated renal pelvis (10/21 = 47.6%). Major abnormalities detected included: hydrocephalus (2), encephalocoele (1), holoprosencephaly with complex congenital heart disease (1), cystic hygroma (1), truncus arteriosus (1), hypoplastic right heart (1) and diaphragmatic hernia (1). Fetal structural abnormalities were missed by routine ultrasound in 45 cases (1.4%). Majority were cardiac abnormalities (19/45 = 42.2%).

Conclusion:
The sensitivity of routine ultrasound in detecting fetal structural abnormalities was 31.8%. The specificity was 99.8%. 47 women (1.5%) were potentially subjected to unnecessary anxiety because of suspected fetal abnormalities which were not confirmed or were assessed as insignificant on subsequent scan. (HKJGOM 2000; 1:28-32)

Keywords : Routine ultrasound, Fetal structural abnormalities