

THE PROBLEM OF DIAGNOSING MALFORMATIONS DURING ROUTINE ULTRASONIC EXAMINATION

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The influence of ultrasound examinations in prenatal diagnostic becomes more important because of an increasing resolution of fetal details due to improvements of the technique and introduction of grey scale. The possibilities of early diagnosis of fetal malformations by routine ultrasound will be demonstrated. The ultrasound examinations had been performed for examination of the size and position of the fetus as well as for placenta localisation. Of interest was the relationship of observed fetal abnormalities after birth, to those prenatally diagnosed by ultrasound, in the Department of Gynaecology and Obstetrics in Kiel. In 1978 and 1979 5.161 children have been delivered in our Department. 66 children, corresponding to 1.3 %, showed abnormalities of various severity. In 44 of these cases an ultrasound examination had been performed in our Department during pregnancy. In 14 of these, malformations could be diagnosed by ultrasound. In the routine ultrasound laboratory of the Department we found 6 abnormalities.

Deformities diagnosed before birth by ultrasound at the Department of Obstetrics and Gynecology in Kiel in 1978 / 79

	Ultrasound examination gestational week	n
hydrocephalus	21. resp. 37.	2
anencephalus with defect diaphragma and enterothorax	28.	1
omphalocele with spina bifida aperta	32.	1
coccygeal teratoma	22.	1
generalised congenital hydrops of unclear etiology	31	1
total		= 6

Deformities that can be diagnosed before birth by ultrasound that have not been detected

	Ultrasound examinations gestational week	n
Potter's syndrome	32. - 35.	3
tumors or cysts up to 6 x 6cm in neck, head, lower abdomen	32. - 35.	3
hydrocephalus with defect diaphragma and myelomeningocele	31.	1
gastroschisis with intestinal eventration	24. - 34.	1
total		8

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In cases of malformations fetus combined with preterm labor, we did not stop delivery. Pregnancies with early diagnosis of fetal abnormalities were interrupted.

The only partial detection of fetal malformations by routinely performed ultrasound examinations should be of some concern.

Methodically, only an optimal technical equipment, an experienced investigator and a systematic control of all the organs can lead to improvement in the diagnosis of fetal malformations.

Beside an extensive improvement of the technical equipment and a more intensive training of the investigators, we consequently perform as a routine ultrasound examination a systematic control of all organs as well as shape of the fetus. The aim is to achieve a higher diagnostic rate in the ultrasound examinations, with respect to severe malformations. However, it should not be assumed that for every individual an early detection of fetal abnormalities would be possible. With respect to these findings, it remains questionable whether such an extensive diagnosis can routinely be carried out, as has already been suggested by Campbell and Hansmann.

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