

ULTRASONOGRAPHIC DIAGNOSTICS OF MULTIPLE PREGNANCY

M. KITTRICH

Institute for the Care of Mother and Child, Prague, Czechoslovakia

B-scannings were performed on 86 pregnant women with clinical suspicion of twin pregnancy. In 22 out of 23 twin cases the ultrasonic diagnosis was right. The earliest diagnosis was in 17th week of pregnancy. The possible difficulties of diagnostics and faults are discussed.

Clinical experience shows that the results of the care for multiple pregnancies are influenced by early diagnosis.

Ultrasonography gives us now the possibility to do it very early without any danger to the fetus (Donald 1965, Donald and Abdulla 1967, Hofmann et al. 1967, Kratochwill 1969, Kittrich 1972). There are two ways of ultrasound techniques. At first we may measure the BPD of the fetal head by means of A-Scan. It is possible to do the diagnosis of twins from the discordancy between the small

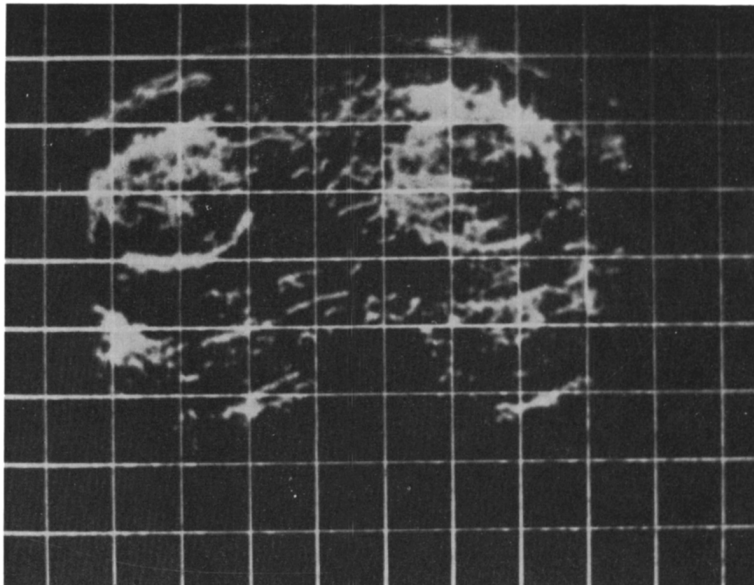


Fig. 1. The heads of twins in the 23rd week. Transverse section through the bottom of uterus. (One square of scale is 3 cm^2 .)

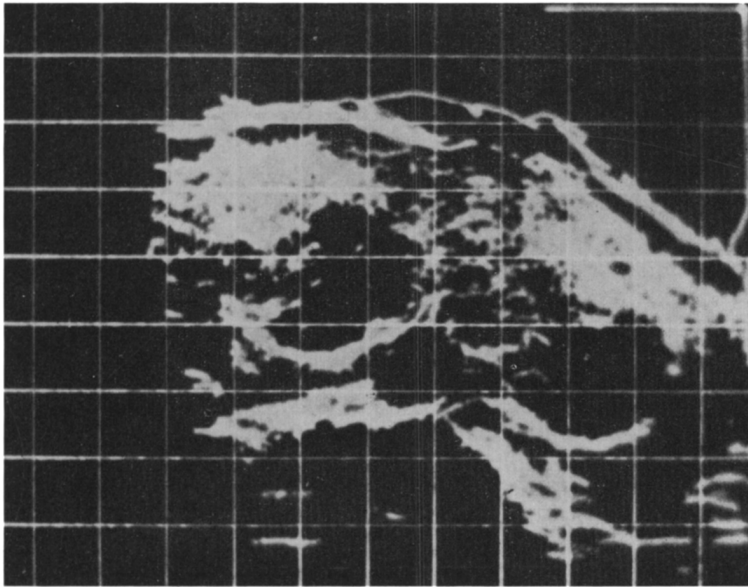


Fig. 2. The head and the trunk of a single fetus. Longitudinal medial section of uterus. The head of the fetus is above the symphysis (on the right side of the picture); the trunk (on the left side) is situated at the level of the umbilicus.

head and large uterus. The second way, which is more reliable, is to use the twodimensional B-Scan apparatus. It enables us to see the picture of both heads of twins as early as in the 14th week of pregnancy. I would like to present our experiences in the diagnostic of twin pregnancy by means of B-Scan apparatus Kretz-Technik.

We performed 109 B-scannings in 86 pregnant women with the clinical suspicion of twin pregnancy. The actual number of twins was 23. Only in one case we did not recognize them by ultrasound. Hence in 22 cases our diagnosis was right. In 8 cases we stated the diagnosis of twins before the 28th week of pregnancy, once in the 17th week. We had some diagnostical difficulties in the beginning period of our B-scanning and we had to do X-ray examinations in some doubtful cases. With increasing experiences we are able to determine the right diagnosis with ultrasound only.

Fig. 1 shows how we succeeded to attain in the 23rd week both heads of twins in one examined plane, which is sometimes very difficult. The diagnosis here was very simple and reliable.

Fig. 2 shows a possible wrong diagnosis of twins. The head of the fetus is on the right side of the picture, the second, very similar, ovoid subject on the left side was supposed at first to be the second head. The other scanning in the transverse section of the supposed head diagnosed the trunk of a single baby.

It may be concluded that a very early and reliable diagnosis of twin pregnancy may be reached by means of twodimensional ultrasonography.

M. Kittrich, M.D., C.Sc., Jug. partyz. 18, 16000 Praha 6, Czechoslovakia.