ULTRASOUND IN THE DIAGNOSIS OF BLEEDING IN EARLY PREGNANCY

by

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Summary

Ultrasonic scanning was done in 75 obstetric cases with bleeding in early pregnancy. The sonographic findings and the follow up studies is presented.

Introduction

Diagnostic ultrasound was introduced into obstetrics and gynecology by Donald and co-workers in 1958. The advantage of this technique is that it allows visual inspection of the embryo and fetus and is also relatively safe as exposore to ionizing radiation is eliminated. It has become an important non-invasive tool for obstetrician and pediatrician to determine fetal well-being. Ultrasound is useful for assessment of fetal maturity presentation, multiple gestation, localization of placenta and also for detection of certain fetal abnormalities. In cases of bleeding in the first trimester it has been reported that blighted ovum can be diagnosed by certain ultrasonic features (like loss of definition of gestation sac. absence of fetal echoes, small for dates gestation sac, low position of gestation sac and failure of growth over a period of 1 to 2 weeks (Donald, 1972) Robinson (1972) has reported that ultrasound was a valuable diagnostic aid, especially in cases in which a complete abortion was diagnosed, unnecessary evacuation could be reduced and the duration of stay in hospital shortened.

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Material and Methods

Seventy-five cases with bleeding in the first and early second trimester were scanned by ultrasonography. The scanning was done with sonograph EP™ (Unirad) using 3.5 MHZ transducer. After applying olive oil liberally over the abdomen, scanning was done both in longitudinal and transverse directions. Patients were advised to come with full bladder which helps to visualize the uterus and embryo clearly. In cases where the findings were not clear cut rescanning was done after 1 week.

Observations

Out of 75 cases, 31 (41.3%) had bleeding during 8 to 12 weeks of gestation, 29 cases (38.7%) had bleeding during 13-16 weeks of gestation and 15 cases (20%) after 16 weeks gestation. The sonographic findings in 37 cases was consistent with period of gestation and follow-up of these cases showed normal pregnancy (Fig. 1). The sonographic findings in the remainig 38 cases were abnorma and findings were as shown below:

Sonographic diagnosis	No. of cases	Sonographic appearance	Follow up results
1. Blighted Ovum	15	All showed enlarged uterus with decidual reaction and gestation sac and (a) Irregular shape of the sac with absent embryonic Echoes—8 (Fig. 2) (b) Low lying sac ..... 4 (c) Small for dates gestation sac 3	3 cases in 'a' group and 3 cases in 'c' group were scanned after one week. All cases had abortion cases in 'b' aborted within 24-48 hours.
2. Missed abortion	11	Enlarged uterus and (a) Fetal parts not clear cut ..... 8 (Fig. 4) (b) Fetal head was present with irregular outline .. 2 (c) Diagnosis was doubtful in one case (missed abortion or vesicular mole) 1	Cases in group 'b' were rescanned after 1 week. There was no change in the appearance. All cases had induction and findings confirmed. Final diagnosis in group 'c' case was missed abortion.
3. Molar pregnancy	7	All cases showed enlarged uterus with absent fetal parts. Uterus filled with material with echopattern similar to placenta. (fig. 3)	Out of these 7 cases 6 were suspected—clinically and were confirmed by scanning.
4. Incomplete abortion	1	Uterus was enlarged but smaller than period of gestation and contents of the uterus was less	Had Dilatation and curattage.
5. Complete abortion	2	Uterus slightly bigger than normal and no products seen inside the uterus.	—
6. Normal pregnancy with hydramnios	1	Marked distension of the uterus with increase in amniotic fluid. Fatal head and spine was normal.	Follow up. Information not available.
7. Normal uterus	1	Normal size of the uterus	There was no pregnancy.

Conclusion

It was found that ultrasonography was a valuable diagnostic aid in cases of bleeding in early pregnancy and by these findings we can predict whether the pregnant woman with bleeding in early pregnancy will continue the pregnancy or not.

In patients in whom a complete abortion was diagnosed by this technique, the number of unnecessary evacuation could be reduced and the duration of stay in hospital shortened.

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References

1. Donald, I., Morley P. and Barnett, E.: J. Obstet. Gynec. Brit. C'wealth. **79**: 304, 1972.
2. H. P. Robinson: J. Obstet. Gynec. Brit. C'wealth. **79**: 90, 1972.

See Figs. on Art Paper III