

## SONOGRAPHY : EVALUATION AS AN AID IN THE MANAGEMENT OF BLEEDING IN EARLY PREGNANCY

By

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### SUMMARY

This study was conducted on 100 patients with bleeding per vaginum in the first twenty weeks of gestation. In 86% of the cases, the clinical diagnosis correlated well with the sonographic findings. 3% of patients with bleeding per vaginum in early pregnancy, wrongly diagnosed clinically as incomplete or missed abortion were saved after sonographic diagnosis of threatened abortion. 5% of patients diagnosed clinically as threatened abortion turned out to be incomplete or missed abortion sonographically. Check sonography after D & C detected incomplete evacuation in 3% of the patients. Sonography has been found to be a very valuable aid in the diagnosis and management of these patients.

### Introduction

Ultrasonography is a safe, non-invasive method of clinical diagnosis in modern obstetrics.

Bleeding in the first trimester is one of the most frequent complications of pregnancy. It is widely quoted that upto 20% of all the patients complain of uterine bleeding during the first 12 weeks of gestation. The clinical approach, although helpful, has its own limitations. The role of ultrasonography in accurate diagnosis of cause and in management of bleeding per vaginum in early pregnancy has been evaluated in 100 patients.

### Material and Methods

Hundred patients with bleeding per vaginum were randomly selected for this

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study. A thorough history was taken and complete physical and pelvic examination was done and a clinical diagnosis made. Patients were thereafter subjected to ultrasonographic examination and the two diagnoses were correlated. Gravindex test on urine was also done. Patients with clinical and/or sonographic diagnosis of threatened abortion and positive gravindex test were treated conservatively. Rest all required D&C. Repeat sonography was done after 48 hours in all patients who had D&C. The role of sonography in diagnosis and management of bleeding in early pregnancy was evaluated.

### Observations and Discussion

The age of the patients ranged from 20 to 35 years and the parity from nil to 6. Distribution of period of gestation on first report of bleeding per vaginum is shown in Table I. A positive history of previous

abortions and preterm deliveries was recorded in 32 patients. The clinical diagnosis of bleeding per vaginum in early pregnancy is shown in Table II.

TABLE I  
Duration of Gestation

Weeks of Pregnancy	No. of Patients
<6	—
6 - 8	30
8 - 10	35
10 - 12	22
12 - 14	5
14 - 16	—
16 - 18	—
18 - 20	8
Total	100

TABLE II  
Clinical Diagnosis

Threatened abortion	59
Incomplete abortion	26
Missed abortion	7
Inconclusive diagnosis	4
? Vesicular Mole	2
? Low lying placenta	2
Total	100

Maximum number of patients ( $n = 59$ ) were diagnosed as threatened abortion. The diagnosis could not be established in 4 patients and vesicular mole and low lying placenta were suspected in two other cases each. Table III depicts correlation of clinical and sonographic diagnosis.

The clinical diagnosis of threatened abortion was found to be correct after sonography in 54 out of 59 patients. All these patients had their urine positive for gravindex test. Out of these 49 continued their pregnancies while 5 aborted spontaneously at a later date. The results are in agreement with Romero *et al* (1984), Malhotra *et al* (1987) and Sofat (1987).

TABLE III  
Sonographic Evaluation

Clinical Diagnosis	Threatened abortion	Incomplete abortion	Missed abortion	Vesicular mole	DUB	Delayed period	Low lying placenta
Threatened abortion (n=59)	54	2	1	2	—	—	—
Incomplete abortion (n=26)	3	22	1	—	—	—	—
Missed abortion (n=7)	—	1	6	—	—	—	—
Inconclusive diagnosis (n=4)	—	1	—	—	2	1	—
? Vesicular Mole (n=2)	—	—	—	2	—	—	—
? Low lying placenta (n=2)	—	—	—	—	—	—	2

Out of 26 patients with clinical diagnosis of incomplete abortion, 4 were found to have threatened abortion on sonography and were therefore treated conservatively although only 3 out of these 4 patients had their urine positive for Gravindex test. These 3 patients continued with their pregnancies while 1 patient, with Gravindex test negative, continued to bleed per vaginum and failed to have increase in size of the uterus. On repeat sonography, incomplete abortion was diagnosed and D&C performed.

All the 7 patients diagnosed clinically as missed abortion had urine for Gravindex test negative although one was diagnosed as incomplete abortion on sonography. All these patients were treated by D&C.

No patient was diagnosed as complete abortion or ectopic pregnancy.

In 4 cases of inconclusive diagnosis on clinical examination the diagnosis was clinched on sonography. The provisional clinical diagnosis of vesicular mole and low lying placenta were also confirmed in 2 cases each. Similar results have been shown by Romero *et al* (1984).

Out of all the 41 patients evacuated of incomplete or missed abortion, 3 of the patients were found to have retained products of conception after repeat sonography. Two were treated by D&C and the products were obtained while one refused a repeat D&C and never came for follow up.

Drumm and Clinch (1976) reported ultrasonographic examination to be a valuable diagnostic aid in the management of patients with bleeding per vaginum in the first trimester, they however reported 2.5% misleading results by sonographic findings.

Hunter and Picker (1979) suggested that it may take some time after the advent of pregnancy failure for the urinary levels of HCG to fall. Often undue time may be spent in the hospital by such patients before definite therapy is commenced. In skilled and experienced hands, ultrasound probably provides the most accurate information. Similar results have been shown by Malhotra *et al* (1987) and Sofat (1987). The strongly recommended sonographic examination in bleeding per vaginum in early pregnancy.

Thus it can be concluded that sonography is a very valuable aid in the diagnosis of cause and in the management of bleeding per vaginum in early pregnancy. It is a much quicker and more reliable method than urine examination for Gravindex test. After sonography the treatment can be more accurately decided and the patient saved of unnecessary pain and bleeding for days during conservative therapy for supposed threatened abortion. Many pregnancies wrongly diagnosed clinically as incomplete or missed abortion can also be saved and allowed to continue.

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