SONOGRAPHIC PICTURE OF SUBMEMBRANOUS HAEMATOMA

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Summary: Two cases of vaginal bleeding during pregnancy where elevation of the membranes was found by means of echography are reported. In one case there was an accessory lobe with a marginal haematoma. No evidence of placenta praevia was found. Elevation of the membranes can represent an echographic sign of submembranous haematoma.

The lack of dangerous effects of diagnostic ultrasounds on the pregnancy provides the obstetrician with a safe method for a real-time study of the product of conception.

This will help to clarify many physiological and pathological conditions that received explanation in the past from studies after delivery.

The present report concerns with two cases of vaginal bleeding during pregnancy, where a submembranous haematoma was identified with echography.

CASE 1

The patient, 20 years old, gravida 1, para 0, was admitted at the 12th week of pregnancy with heavy painless vaginal bleeding. Blood tests and beta-HCG values were within the range of normality; echography showed a normal fetus. The placenta was implanted anteriorly, with a narrow transonic area 1.3×6.7 cm between the chorioamniotic membranes and the posterior uterine wall. After 11 days of bed rest haemorrhage ceased and the patient was discharged. At the 18th week she returned with a new episode of vaginal bleeding, without evidence of uterine contractions. A blood count revealed R.C. 3,400,000, Hb 9.9, Ht 30.3. Blood pressure was 100/70, dyspnaea was present, therefore a blood transfusion was given. Echography confirmed an extrachorial transonic area extending from the left side of the placenta toward the posterior wall of the uterus (fig. 1). Vibration of the left border of the placenta, suggesting a gelly consistency, and oscillatory movements of posterior membranes were obtained upon real-time examination. At the 19th week the vaginal bleeding ceased definitively, and the successive course of the pregnancy was uneventfull. Echography follow-up failed to demonstrate the extramembranous posterior transonic area. At the 39th week the patient delivered spontaneously a normal fetus, 3,150 g, Apgar score 8/9. The placenta showed normal consistency. A 6×6 cm unsupected accessory lobe was present, 10 cm distant from the main placental body. The umbilical cord was inserted into the main placenta from which a long arched artery run to the accessory lobe. A marginal haematoma was found on the main lobe.

CASE 2

The patient, 25 years old, gravida 2, para 1, had been admitted in another department with vaginal bleeding and uterine contractions. After 10 days of bed rest and tocolytic thepary these symptoms ended. At the 19th week the patient was sent to our department, following a second episode of heavy vaginal bleeding associated with uterine contractions. Blood count showed R.C. 3,390,000, Hb 10, Ht 29. Blood pressure was 120/80. Echography showed a normal fetus. The placenta covered the fundus and the posterior wall, while the membranes were completely detached from the decidua (fig. 2). Floating of the membranes was seen with fetal movements and with percussion of the uterus, while placental tissue was firmly consistent. After seven days of bed rest and therapy with tocolytic agents the patient went into active labor: a normal live male fetus, 250 g of weight, 25 cm length was aborted. Observation of the placenta, measuring $13 \times 10 \times 1$ cm, and of the membranes showed no abnormalities. The umbilical cord was centrally inserted. There was no evidence of retroplacental of marginal haematoma.

DISCUSSION

Elevation of the membranes associated with vaginal bleeding has already been observed with echography ([1]). It is considered as a sign of bleeding from pla-

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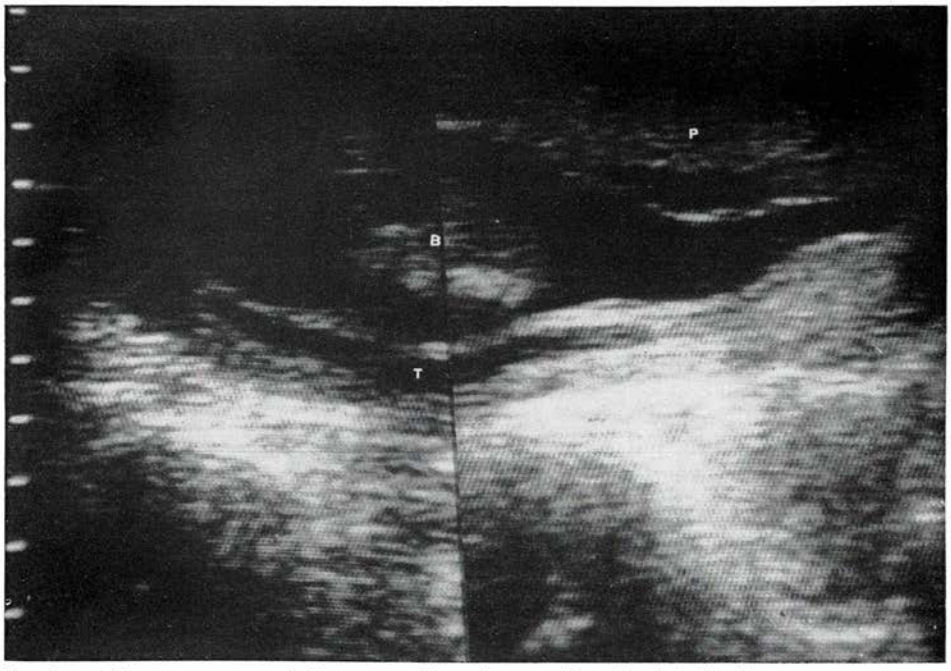

Fig. 1. — Transverse scan of the uterus. P = placenta; B = fetal body; T = extramembranous transonic area.

Fig. 2. — Longitudinal scan of the uterus. P = placenta; B = fetal body; T = extramembranous transonic area. The arrow indicates dissected membranes.

cental site dissecting behind the chorion laeve ([2]). It may disappear in subsequent examinations. Floating of the membranes should be present with fluid blood, while blood clot is reported to vibrate after percussion or synchronize with the maternal pulse ([3]).

Marginal bleeding was ascribed in the past to the rupture of the placental marginal sinus. The existence of such a venous sinus was subsequently denied ([4]), therefore the theory of the marginal sinus bleeding was abandoned. Wilkin and Picard (1961) ([5]) suggested that a marginal haematoma could result from rupture of uteroplacental veins in cases of lateral placenta praevia. Now that the exact placental site can be determined *in vivo* with echography it seems possible to verify this opinion.

In two cases of vaginal bleeding reported in literature ([2, 6]), as in the first case described by us, a marginal haematoma was accompanied with an accessory lobe, without evidence of placenta praevia. In the second of our cases the placenta was implanted at the level of the fundus and a marginal haematoma was not found at birth. However marginal bleeding must be considered, although other unknown causes might have contributed to the complete separation of the membranes from the decidua parietalis, at such an early stage of gestation.

The lateral placenta praevia seems not to be the unique possible cause of marginal bleeding, as it was absent in the cases reported above. As suggested by Spirt *et al.* (1981) ([1]) the placenta succenturiata might be frequently associated with marginal haemorrhage.

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