Angular pregnancy

Clinical management

V. LAMAINA - P. LITTA - A. SANDRI - G. B. NARDELLI

Summary: A case of angular pregnancy was diagnosed by ultrasound examination after curettage of abortion hemorrhage. The rarity and clinical management of this condition are discussed, as well as the importance of ultrasound investigation for early diagnosis.

INTRODUCTION

Although ultrasound examination has extensively changed clinical management in obstetrics, a precise and early diagnosis of an ectopic pregnancy is not yet always possible ([1, 2, 3, 4, 5]).

In many cases, in fact, the ultrasound picture is not pathognomonic of the clinical situation, especially in patients with adhesions from previous surgery or anomalous fetal states.

Thus, the axiom, empty uterus and positive pregnancy test holds true ([6, 7]); if pelvic topography should allow ultrasound detection of other characteristics besides these two, they would only be chance findings. The medical approach to a suspect ectopic pregnancy therefore relies heavily on clinical experience.

CASE REPORT

A 39 year old woman, para 4004, was admitted with a diagnosis of abortion hemorrhage during the 8th week of amenorrhoea with uncertain duration. Since she was highly anemic emergency curettage was performed, which brought the clinical situation under control. Before discharge, a routine ultrasound examination demonstrated an enlarged uterus; in the right angle, there was a transonant formation of 1.1 cm in diameter referable to an ovular chamber, which suggested a right angular implantation of the pregnancy.

Gynecological examination confirmed the ultrasound finding of enlarged uterus, and detected a painful area in the right adnexal site. Serial plasma titres of the beta HCG subunits subsequently disclosed daily increases. A second curettage with hysteroscopy was performed under US control and verified the technical-instrumental impossibility of reaching the ovular chamber in the right angle. Methotrexate (MTX, 30 mg) and Sulprostone were then administered daily for 6 days, and a third curettage with simultaneous ultrasound examination was attempted.

On this occasion as well, despite the clear, MTX-induced morphologic modification in the trophoblast, it was not possible to completely and confidently clean out the right angle, thus definitely demonstrating the inadequacy of the vaginal route in this setting. It became evident that laparotomy constituted the only appropriate approach, and a fundal hysterectomy, according to Beutner, was performed.

Following incision of the peritoneum, an enlarged uterus (3 times normal volume) and a large swelling of about 4 cm in diameter at the right tubular angle were observed; palpation disclosed taut elastic zones alternating with others of greater consistency. The course and mor-

Institute of Gynecology and Obstetrics
Padua University (Italy)

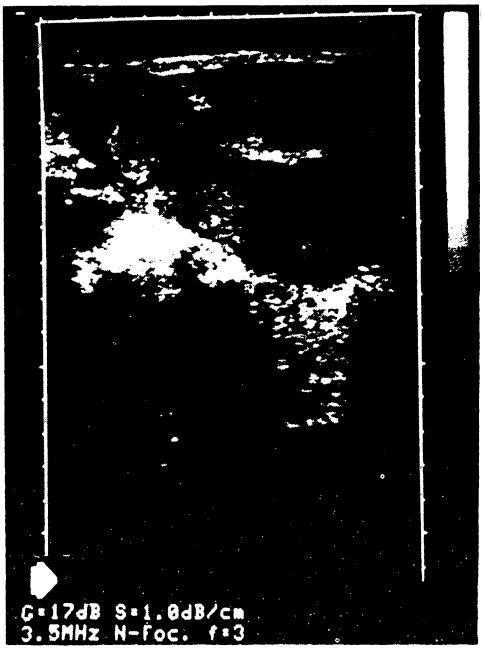

Fig. 1. – Right angular pregnancy.

phology of the right tube were normal. The clinical-instrumental findings were thus completely confirmed at laparotomy.

Histologic examination revealed a preponderance of pregnancy features (decidua, chorionic villi, cyto and syncytial trophoblast) only in the first curettage sample and in the surgical specimen (fragment of the right tubular angle of the uterine wall). The material obtained at the second and third curettages did not show the presence of chorionic villi, and histologic findings of glandular reaction with Arias-Stella cells instead generally indicated an extra-uterine pregnancy.

DISCUSSION AND CONCLUSIONS

Among the abnormal implantation sites of the fertilized ovum, tubal extra-uterine pregnancy is by far the most frequently observed (96-98%); the ectopic angular or cervical pregnancy is, instead, a rarity (1-2%) ([8, 9]). The course of these obstetrical pathologies is well known; as soon as the clinical picture is considered resolved by RCU intervention, the tendency is to discharge the patient while awaiting the histologic report. However, the waiting period for this report (10-20 days) may constitute a danger for the patient.

An analysis of the case presented above reveals the importance of ultrasonography as a non-invasive procedure in the diagnosis of abnormal implantation of the fertilized ovum. Pre-operative ultrasound control of the uterus is, at present, a routine procedure, but in emergency situations, where it may not be available, at least, ultrasound examination should be carried out before discharging the patient. This precaution not only favours a good operative outcome, but also enables detection of atypical situations of ovum implantation and/or possible residues. In our case, in fact, the histological report indicated ovular chamber implantation in the uterus (fragments of decidua and chorionic villi), so this patient would most probably have escaped clinical control, with an unfavorable prognosis, in our opinion.

Therefore, if histologic examination was once considered as the definitive proof of a uterine pregnancy subsequently removed by curettage, it is now judged inadequate. We believe that every curettage should be preceded and followed by ultrasound examination; the optimal situation would be curettage with direct ultrasonoscopy. Ultrasonography, in fact, not only employs trans-abdominal, but also trans-bladder, trans-vaginal and trans-rectal transducers, which provide a very detailed view of the uterine cavity, a view that was not possible with the ultrasound instruments of five years ago.

BIBLIOGRAPHY

1) Lawson T.: "Ectopic pregnancy: Criteria and accuracy of ultrasonic diagnosis". *Am. J. Roentgenol., 131,* 153, 1978.

2) Marlad N., Wright C.: "Gray scale ultrasonography in diagnosis of ectopic pregnancy". *Radiology, 126,* 221, 1978.

3) Bovicelli L., Rizzo N., Micellacci L.: "La diagnosi ecografica della gravidanza ectopica nella pratica clinica". *G. Italiano Ost. Gin., 2 (4)*, 33, 1980.
4) Leblico P., Levi S.: "The diagnosis value of ultrasonography in 342 suspected cases of ectopic pregnancy". *Acta Obst. Gyn. Scand., 59*, 29, 1980.
5) Kadar N., Caldwell B. V., Romero R.: "Preoperative diagnosis of ectopic pregnancy". *Obst. Gyn., 58*, 162, 1981.
6) Kadar N., Romero R.: "The timing of a real ultrasound examination in the evaluation for ectopic pregnancy". *J. Clin. Ultrasound, 10*, 221, May-June 1982.
7) Kosasa T. S.: "The use of the hCG beta subunit radioimmunoassay in obstetrics and gynecology". *Curr. Prob. Obst. Gyn., 3 (8)*, 25, 1980.
8) Pescetto G., De Cecco L., Pecorari D., Ragni N.: "Manuale di ostetricia e ginecologia", vol. II, cap. XLIX, pag. 1316, 1989.
9) Jansen R. P. S., Elliot P. M.: "Angular intrauterine pregnancy". *Obst. Gyn., 58*, 167, 1981.

Address reprints requests to:
V. LAMAINA
Via A. Ristori, 14
35100 Padova (Italy)