A NEW ASPECT IN THE DIAGNOSIS OF ECTOPIC PREGNANCY THROUGH REAL TIME ECOGRAPHY

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Ultrasonographic diagnosis of tubal pregnancy is based on the following criteria: I) a uterus of normal size or moderately enlarged with abnormal echo pattern; II) absence of intrauterine gestational sac; III) gestational sac or fetus outside the uterus; IV) uterus lying aside, and either a transonic mass (related to the gestational sac) or a complex mass (related to haematoma) lying by the uterus; v) a transonic layer in the cul-de-sac. (1, 2, 3, 4, 5, 6)

The reliability of a ultrasonic diagnosis is proportioned to the number of typical signs ascertained at one time — the higher the latter is, the higher the former.

Real time ecography has not improved on manual scanning diagnosing, except for a better detection outside uterus of movements and/or heart activity of the embryo, which are not often to be seen.

Our paper reports preliminary data about a new aspect peculiar to ectopic pregnancy, that we have recently begun to observe by real time ecography.

Material and methods

An SSD 202 Aloka apparatus and an SSD 110 S Aloka apparatus have been used. Observation has been carried out after the filling of the patient's bladder. Transverse, oblige and longitudinal scanning has been effected on supine women. (Fig. 1, 2)

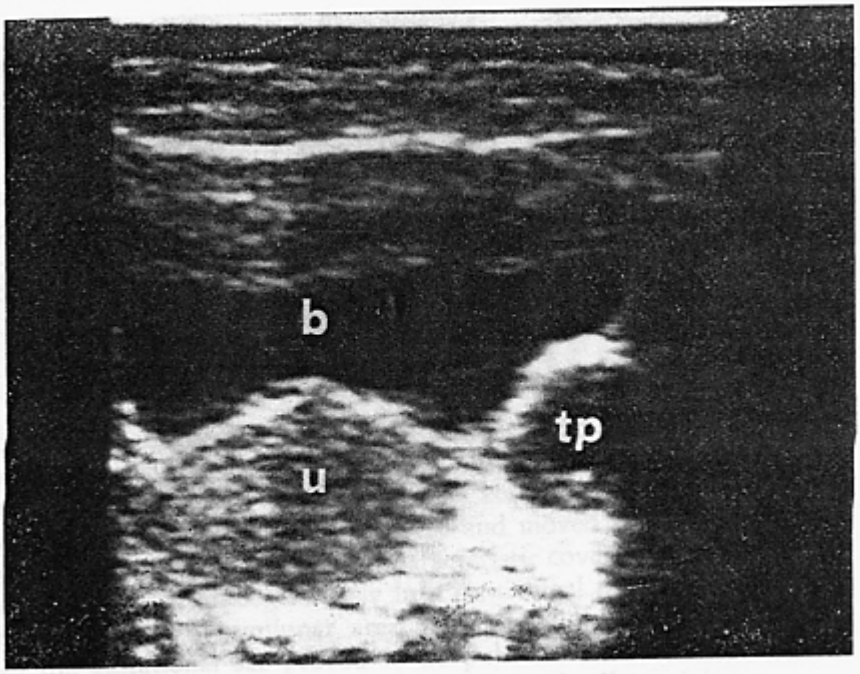

Fig. 1: Transversal section of pelvis by linear multitrasducer. b = bladder; u = uterus; tp = tubal pregnancy.

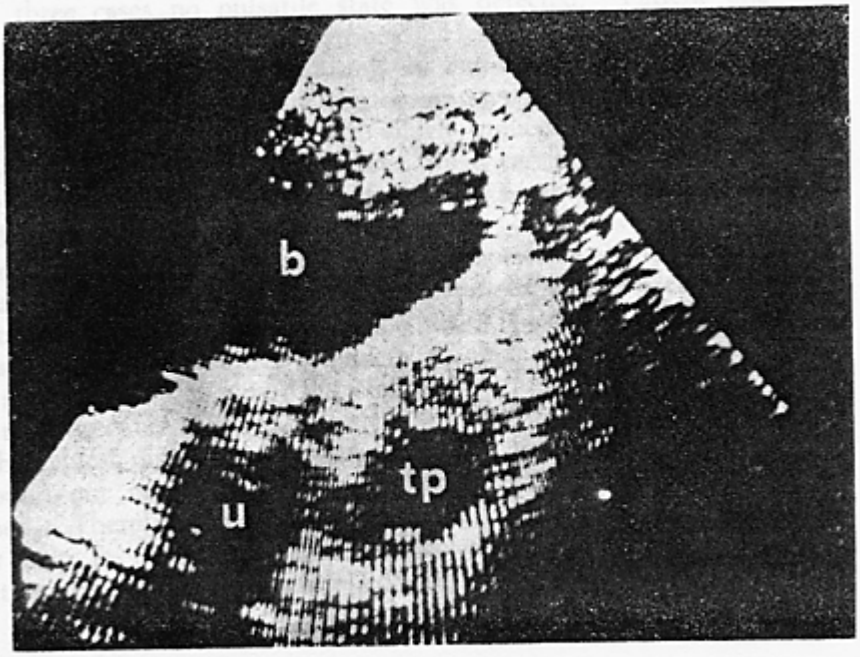

Fig. 2: Transversal section of pelvis by secto scanner. b = bladder; u = uterus; tp = tubal pregnancy.

We have examined ten consecutive patients whose tubal pregnancy was diagnosed with the traditional criteria. Their age went from 22 to 34 years, whereas their gestational age went from the 6th to the 11th week. Laparotmy confirmed our diagnosis on nine patients. One, for whom we had diagnosed a tubal abortion, was kept under no further observation — thus agreeing with her doctor — because a spontaneous remission of her symptoms had occurred.

Results and discussion

Out of ten consecutive patients whose diagnosis of tubal pregnancy was reached with the traditional ultrasonic methods, seven presented the extrauterine mass related to ectopic pregnancy particularly pulsatile. It was quick and lively and moved in synchrony with the pulse. In six patients such a characteristic covered the whole mass, which expanded homogeneously in a centrifugal direction. As for one patient, only a semilunar area belonging to the part interpreted as the gestational sac proved to be pulsatile — in the same patient we had also observed a high-frequency pulsatile activity to bereferred to the embryo heart-tube.

In three cases no pulsatile state was detected. Patient one was at her 11th week of amenorrhoea. Her right-hand annex appeared to be bigger, besides housing an egg-shaped little mass of about two centimetres. During the ecography, the patient showed visible signs of peritoneal irritation which induced us to take her to hospital at once. A laparotomy was, then, carried out; a haemoperitoneum was found out, which confirmed a tubal pregnancy associated with the rupture of the tuba.

Patient two was at her 8th week of amenorrhoea — her adipose membrane was quite thick, her annex appeared to be particularly and homogeneously echo-poor.

Patient three was at her 9th week of amenorrhoea — peculiar to her annex was a complex mass confined within ill-marked limits, owing to a previous tubal abortion.

The typical pulsation that ecography can ascertain in real time was found out in 70% of the tubal pregnant women we have examined. Therefore, we believe that this new aspect can be of further help in the diagnosis of ectopic pregnancy if utilized in association with the above mentioned classic criteria.

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