

DIFFERENTIAL DIAGNOSIS OF PELVIC MASSES BY ULTRASONIC EXAMINATION

P. RESTA (*), G. B. NARDELLI (*),
A. AMBROSINI (*), N. D'ANTONA (**)

(*) Department of Obstetrics and Gynecology,
University of Padua

(**) Department of Obstetrics and Gynecology,
University of Siena

With modern, high-resolution ultrasound imaging systems and appropriate operator technique, a great deal of detailed information is available; besides as a noninvasive technique transabdominal sonography causes no discomfort to the patient.

MATERIAL AND METHODS

From January 1976 to December 1978, a complete documentation was obtained on 120 patients presenting with gynecological pathology who had undergone ultrasonic examination with subsequent surgical findings (1, 2, 3, 4, 5, 6).

In this study, a simple scansion ultrasonic apparatus was employed as well as an apparatus with a gray scale and real-time.

By comparing the echographic method results with the anatomopathologic findings, the reliability of this examination was evaluated.

From an echographic point of view, the neoformations may be distinguished as cystic, solid and mixed and this classification, is of primary importance in therapeutic orientation, especially when the clinical sensation is that of "taut elastic" mass (7, 8, 9, 10, 11, 12).

DISCUSSION AND CONCLUSION

The percentages of echographic errors and doubts are reported in the table 1.

In our hands, the frequency of errors for the mixed solid-cystic forms is 41%. These cases consist of patients with colic in the lower abdominal quadrants, and in whom, at the operating table, the ovary was completely surrounded by a tight network of adhesions that bound it to nearby organs.

In fact, fibrin may constitute a honeycomb three-dimensional structure. Adhesions of this type have a good acoustic impedance and, thus, determine on the display the formation of false images that lead the operator to a completely incorrect diagnosis.

On the other hand, the percentages of exact diagnosis were 88,6% for the solid forms, and 93,3% for the cystic forms, and these data confirm the high technological level of modern equipment.

SUMMARY

The Ultrasonic technique is a new dimension in cancer detection and follow-up; the sonic image is the compound effect of many simultaneously operating physical phenomena evoked by the acoustic properties of the tissues. With increased experience in the investigation of pelvic space-occupying lesion it is now appropriate to place this diagnostic procedure in its proper perspective.

A series of 120 gynecological patients were studied by this technique.

Table 1.

	correct	incorrect	doubtful	total
Cystic forms	50 (94,3%)	3 (6,7%)	0	53
Solid forms	47 (88,6%)	3 (5,7%)	3 (5,7%)	53
Mixed forms	7 (50 %)	5 (35,7%)	2 (14,3%)	14
Total	104 (86,7%)	11 (9,1%)	5 (4,2%)	120

Knowing the composition of the mass that will be manipulated places the surgeon in a situation of greater operative security, and avoids peritoneal dissemination, especially in ovarian carcinomas containing retained secretions.

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