

STUDIES IN ULTRASOUND DIAGNOSIS OF GYNECOLOGIC PATHOLOGY

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In the field of benign and malignant disease of the pelvis where early diagnosis is particularly difficult, the use of the echographic technique is a precious aid in the diagnostic procedure leading to identification of the mass. Echography, in fact, furnishes useful information regarding the site, relationships with nearby visceral organs, structure, size, and volume variations with time. This technique, in addition, is particularly useful in patients who are reluctant to undergo gynecological examination, as well as in obese patients when clinical examination may be complex.

From January 1979 to December 1981, we performed over 13,000 obstetrical and gynecological echographic examinations. Among these, 328 patients presented gynecological disease on ultra-sonography that was subsequently confirmed on laparoscopy and/or laparotomy in our hands. During this period we employed various instruments equipped with grey-scale and real-time where it was possible to halt the images and measure the visualized structure digitally. The age and parity of the patients varied and was not statistically significant. Various symptoms led the patients to our Clinic, and consisted of metrorrhagia (22%), pelvic pain (22%), colic-type pain in the iliac fossa (17%), pain in the lower abdominal quadrant (13%), heaviness in the abdomen (10%), increase in abdominal volume (9%), as well as headache, nausea, vomiting, weight loss, irregular menses, leucorrhea, dysuria, lumbar-sciatic pain, hypertrichosis, and finally, casual findings. Results obtained on ultrasound examination were checked against pathologic findings (table 1).

It is clear that the percentage of correct diagnoses is almost 90%, in agreement with the reports of others. Careful analysis of the data discloses that in the presence of ovarian cysts, the percentage of correct ultrasound diagnoses is almost 100% but, in the presence of malignant

SUMMARY

Authors present in this work their most recent cases (years 1979-81) about the use of ultrasounds in gynecologic pathology.

Table 1. — *The most recent case series (1979-1981) regarding the use of ultrasound in gynecologic pathology is reported.*

	correct	%	Echographic Diagnoses				total
			erroneous	%	doubtful	%	
Benign ovarian cyst	79	97.5	2	2.5	—	—	81
Malignant ovarian cyst	7	70	3	30	—	—	10
Fibromyoma	85	89.5	8	8.4	2	2.1	95
Multilocular cyst	9	100	—	—	—	—	9
Solid-cystic mass	14	87.5	2	12.5	—	—	16
Abscess	3	75	—	—	1	25	4
Bicornate uterus	12	92.3	—	—	1	7.7	13
Mass englobing the uterus	—	—	—	—	1	100	1
Hematoma	1	100	—	—	—	—	1
Endometriotic cyst	11	84.6	2	15.4	—	—	13
Dermoid cyst	2	66.7	—	—	1	33.3	3
Ascites	7	100	—	—	—	—	7
Polycystic ovary	17	85	1	5	2	10	20
Genito-intestinal adhesions	43	87.8	6	12.2	—	—	49
Stein-Leventhal	3	50	3	50	—	—	6
	293	89.3	27	8.2	8	2.5	328

ovarian masses, it is very low. However, the 328 patients evaluated in this series underwent surgery in our hands, and it was thus possible to confirm the pathological process in course. Many other patients with a pelvic tumefaction on echography were operated elsewhere, and it was not possible to corroborate the precision of ultrasound diagnosis in these cases. Therefore, this series does not refer to the entire patient group that was observed, and consequently it is not possible to know the real number of the false positives and negatives diagnosed.

Without doubt, there are limitations to the use of echography in gynecology; impossibility of identifying structures under a certain size (2-3 cm for solid masses), great difficulty in recognizing the anatomicopathologic nature of the tumor, impossibility of formulating a diagnosis of be-

nignancy or malignancy, and the requirement of qualified technical skill for data interpretation. For a good examination result, analysis of the echographic image entails an accurate study of the echoes, with evaluation of their intensity, luminosity, number, proximity, concentration, arrangement, and depth. A hurried interpretation may lead to an erroneous classification, and thus weaken the validity of the examination itself. At the present time ultrasonography is not considered a substitute for other methods of investigation, but rather a complementary technique whose routine application may prove useful in the diagnostic procedure of gynecologic neoplasias.

BIBLIOGRAPHY

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