Ovarian leiomyoma

Case report

L. SAN MARCO (*) - F. LONDERO (*) - V. STEFANUTTI (*)
L. COSTA (*) - M. ROCCO (**)

Summary: We describe a case of primary ovarian leiomyoma in a 16 year old patient; both ovaries were affected. Since at intervention normal tissue was found, the left ovary was preserved and a 30-months follow-up was carried out. Tumour markers (CA-125; alpha-fetoprotein; CEA and beta-HCG) were tested. Such a case has not previously been reported. Etiopathogenesis is also discussed.

CASE REPORT

A 16 year old patient was admitted to this General-Hospital in May 1988 (CC n. 2027) with a history of pelvic pain and increased abdominal girth. Her cycles were regular (27-29 days).

Pelvic examination revealed a large, irregular, painful mass. Ultrasonography confirmed the presence of a pelvic, mixed-density mass (Fig. 1); no ascitic fluid was noted. Negative chest radiography; CA 125 = 35 ng (n. <40); alpha fetoprotein = 0.7 ng (n. <20); CEA = 1.34 ng (n. <6); beta HCG negative.

At laparotomy, a very large tumour growing from the right ovary and a small tumour from the left ovary were found (Fig. 2). The uterus was normal; there was no lymphoadenopathy. Right salpingo-oophorectomy was performed; in the left ovary apparently normal tissue was preserved. Routine hematoxylin and eosin sections showed a classic leiomyoma feature (Fig. 3).

On the 10th day, the patient was discharged and ultrasonography showed a left ovary of 2.3 ml volume.

30 months after the operation, the patient was eumenorrhoic, but the ultrasound examination showed that the left ovary was becoming larger and larger; at present 6.9 ml volume (Fig. 4).

DISCUSSION

Leiomyoma originating primarily in the ovary is rare.

At the time, 28 cases had been reported ([8]); in the reported cases, the age of the patients ranged from 20 to 65 years and it had appeared in nulliparus as well as multiparus women; in all cases only one ovary was affected ([1, 2, 5, 6]). No conservative management and no follow-up had been previously reported.

Clinically ovarian leiomyoma rarely induces serious symptoms. Only Fino and Warren, appart from ourselves, have reported pelvic pain and increased abdominal girth. Recently Nicoll and Cox reported an association Meigs-syndrome ovarian leiomyoma.

Ecography is of no value in differential diagnosis: hyalinization, haemorrhage, calcification and cysts may occur to the

(*) Obstetrics and Gynecology Department, General Hospital, Gemona del Friuli, Udine (Italy)
(Consultant: Dott. C. Varagnolo)
(**) Pathology Department, City Hospital Udine (Italy)
(Consultant: Prof. B. Antoci)

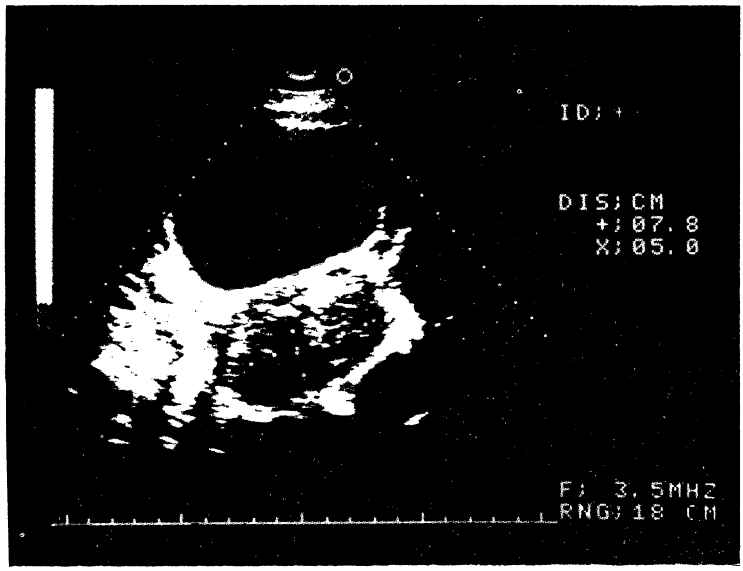

Fig. 1. — Sagittal sonogram: a large mixed-density mass suggestive for ovarian m.m.

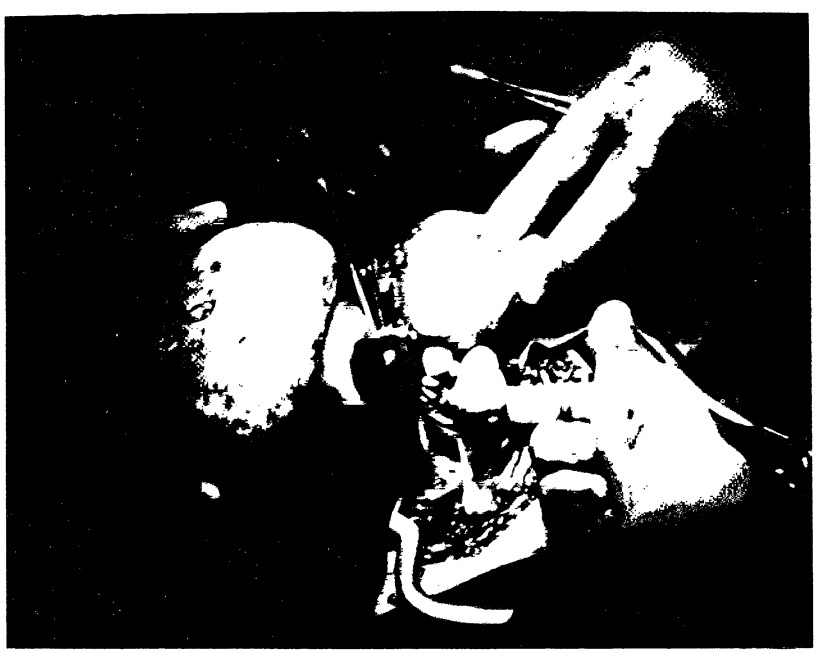

Fig. 2. — Operatory specimen.

Fig. 3. — Microscopic section illustrating fascicular aggregation of large spindle cells.

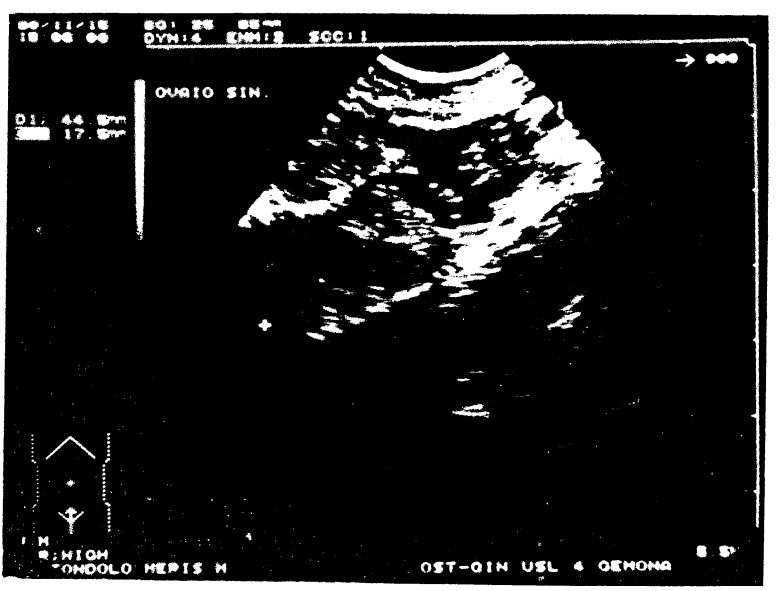

Fig. 4. — Ecographic follow-up 30 months later: left ovary of 6.9 ml. volume.

same degree in this tumour and ultrasound findings, of a dense or mixed-density mass, may suggest malignancy ([7]).

Microscopically, routine hematoxylin and eosin sections show bipolar muscle cells with myogenic cytoplasm and coarse, fascicular aggregation of large spindle cells.

CA 125, as well as the other tumoral markers, had not been previously reported, which is understandable since ovarian leiomyoma is rare and CA 125 is a relatively recent test.

Several hypotheses have been proposed regarding the origin of this tumour. Doran belives that the primary ovarian leiomyoma may come from miocells of the blood vessels of the hilus. This theory seems to be confirmed by the experience of Fallahzadeh; that they arise from indifferentiated cells of the ovarian stroma is proposed by Kleistman. Regarding the etiopathogenesis, hormonal oncogenic stimulus could be assumed. Since vascular miocells or undifferentiated cells are everywhere, we should assume the presence of specific constitutional receptors, differentiated also in amount, in the ovary. In our experience this is shown by the age of the patient and by the tumour size. The ovarian leiomyomas reported in menopause ([2]) are occasional findings, probably disease started in youth. Unfortunately, up to now the research of the receptors on the operatory specimens has not been reported.

REFERENCES

1) Doran A.: cited by Fallahzadeh, *Trans. Obst. Soc. Lond*, *44*, 68, 1988.
2) Fallahzadeh H. Dockerty B. M. Lee R. A.: "Leiomyoma of the ovary: Report of five cases and review of the literature". *Am. J. Obst. Gyn.*, *113*, 394, 1972.
3) Fino J. A., Warren P. A.: *Am. J. Obst. Gyn.*, *56*, 808, 1948.
4) Kleitsman R. J.: *Acta Obst. Gyn. Scand.*, *29*, 161, 1950.
5) Massé L., Dax M. H., Carles J.: cited by Fallahzadeh. *Bord. Chir.*, *4*, 196, 1953.
6) Miller J.: cited by Fallahzadeh, "Handbuch der spaziellen pathologischen anatomie und histologie". Berlin, 7, 333, 1937.
7) Moyle J. W., Rochester D., Sider L. Shrock K., Krause P.: "Sonography of ovarian tumors: Predictability of tumour type". *AJR*, *141*, 985, 1983.
8) Nicoll J. J., Cox J. P.: "Leiomyoma of the ovary with ascites and hydrothorax". *Am. J. Obst. Gyn.*, *161*, 177, 1989.

Address reprint requests to:
L. SAN MARCO
Div. Ostetricia e Ginecol.
Ospedale Civile USL N. 4
33013 Gemona del Friuli
Udine (Italy)