(>10 cm)

[1]

. . . [2]

: 10 cm ,

,

.

: 5
10 cm 42
.

. , ,
.

: 42 35 (83.3%) .
23 22 (95.7%), 19 13 (68.4%)
, (p= 0.018) . 26
23 (88.5%), 16 12 (75.0%)
(p= 0.256) .

: 10 cm

, .

, .

(1, 3- 5). ,

. ,
, , .

. ,
,
, .

, .
(> 10 cm)

, , MRI ,
(1, 2).

.

, ,
(Magnetic
Resonance Imaging, MRI)

10 cm
1
2
76 .

: (>10 cm)

27 , (TR: 3525- 4465, TE: 120- 132) ,

4 , ,

.

3   42 , T1-

. T2-

41.9 (8- 74) , 23 , (6- 9) (Fig. 1).

19 . 10 cm   21 , ,

cm   15 cm , 24 .   MRI

, 18 . ,

16 , 26 (Table 1). ,

MRI   1.5- T Magnetom Vision(Siemens, Erlangen, ,

Germany) , 6 mm , T1- MRI

(TR: 690- 874, TE: 12) , T2-

.

chi- square , $p < 0.05$.

Table 1. Pathologic Diagnosis of Unilateral Ovarian Tumors

Pathologic diagnosis	Number of patients
Benign tumors	26
Mucinous cystadenoma	6
Serous cystadenoma	2
Mature cystic teratoma	9
Endometriosis	2
Struma ovarii	1
Parovarian cyst	2
Fibroma	1
Ovarian torsion	3
Malignant Tumors	16
Serous adenocarcinoma	6
Serous tumor of borderline malignancy	3
Mucinous cystadenocarcinoma	2
Clear cell carcinoma	1
Mixed serous and endometrioid adenocarcinoma	1
Endometrioid carcinoma	1
Endodermal sinus tumor	1
Squamous cell carcinoma arising in mature teratoma	1

42   35 (83.3%)

.   23   22 (95.7%)

, 19

13 (68.4%) ,

($p = 0.018$) .

26   23
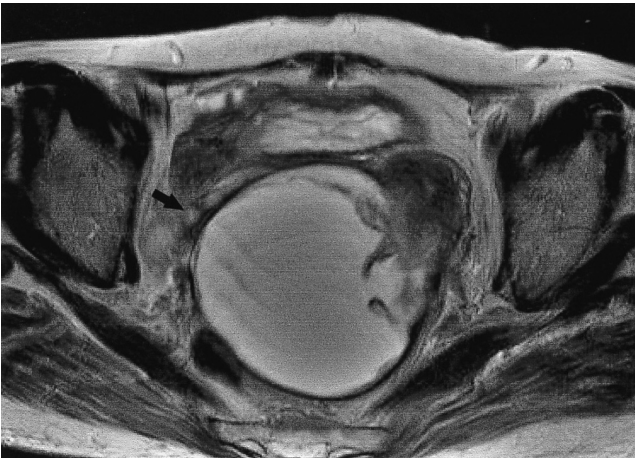
(88.5%), 16   12

(75.0%)

($p = 0.256$) (Table 2).

Fig. 1. A 72-year-old postmenopausal woman with serous cystadenocarcnoma at left ovary. The right ovary (arrow) with multiple follicles is displaced and distorted by left ovarian mass on T2-weighted image (TR/TE = 4000/132).

Fig. 2. A 39-year-old premenopausal woman with mature cystic teratoma in right ovary.
The mass is located in mid-line and left sided pelvic cavity on T2-weighted axial images (TR/TE = 3525/120), but normal left ovary with follicle (arrow) is seen in left posterior aspect of pelvic cavity. We esaily guess the mass is arising in right ovary.

MRI

24 (57.1%)

14 (33.3%),

4 (9.5%) (Fig. 2).

16 (38.1%), 5 (11.9%)

21 (50.0%)

(Fig. 3).

(1),

(2),

MRI T1-
, T2-

T1-
(6-9).

Granberg (10) 92%,
87%
, Disantis (12) ,
76% (16/21), 20% (12/59)

Dooms (3) MRI

93.3% (28/30)
56.7% (17/30)
(13)
92 85 (92.4%)
, 30 100%,
30-39 95.0%, 40 85.0%

(4, 7).

Zawin (4)
, 45.6% (21/46), MRI

Fig. 3. A 36-year-old premenopausal woman with mucinous tumor of borderline malignancy at right ovary. T2-weighted sagittal image (TR/TE=4465/120) shows high signal intensity huge mass in abdominal and pelvic cavity. But, uterus is located in mild-line of pelvic cavity (arrow). The location and displacement of the uterus is not helpful to determine the site of mass.

Table 2. Detection Rate of the Contralateral Normal Ovary according to Menstruation State and Character of Tumor

		Detected(%)	Not detected(%)
State of menstruation*	Premenopausal ($n=23$)	22 (95.7)	1 (4.3)
	Postmenopausal ($n=19$)	13 (68.3)	6 (31.7)
Character of tumor	Benign ($n=26$)	23 (88.5)	3 (11.5)
	Malignant ($n=16$)	12 (75.0)	4 (25.0)

* $P=0.018$

: (>10 cm)

95.6% (44/46) , ,

, MRI .

, MRI 10 cm

,

MRI .

,

10 cm .

MRI

, 83.3%

, 95.7%, 68.4%

.

(3) Zawin (4)

. MRI

,

,

MRI

.

,

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, S-

.

57.1%

,

33.3% ,

9.5%

.

, 50.0%

,

38.1% , 11.9%

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MRI

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Detection of Contralateral Normal Ovary in Patients with Large(> 10 cm) Unilateral Ovarian Mass by Using MRI[1]

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Purpose: To assess the usefulness of MRI for determining the presence of a large (> 10 cm) unilateral ovarian tumor by detecting the existence of a normal contralateral ovary, and to establish the difference in detection rates between premenopausal and postmenopausal women, and benign and malignant tumors.

Materials and Methods: Forty-two patients who underwent MR imaging and in whom the intraoperative gross and pathologic findings indicated the preseace of a unilateral ovarian mass and a normal contralateral ovary were included in this study. The images obtained were retrospectively analyzed by two radiologists, who determined the detection rate of the normal contralateral ovary and whether this differed between premenopausal and postmenopausal women, and benign and malignant tumors.

Results: Contralateral normal ovaries were detected in 35 (83.3%) of 42 patients [22 of 23 ovaries (95.7%) in premenopausal women and 13 of 19 (68.4%) in postmenopausal women], with a statistically significant difference ($p=0.018$). Twelve of 16 of these ovaries (75%) were present in women with malignant tumors, and 23 (88.5%) of 26 in those with benign tumors, but the difference was not statistically significant ($p=0.256$).

Conclusion: MR imaging is useful for detecting a normal contralateral ovary and for determining the site at which a large (>10 cm) unilateral ovarian tumor originates, especially in premenopausal women.

Index words : Ovary, MR
Ovary, Neoplasms

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