

1

: .

: 1996 1 2001 9  
17 7  
US 3 , CT 4 , MRI 1 ,

: 6 , 1 , 5 ,  
가 6 , 1 .  
1 , 2.6 cm, 1.5 cm  
가 5 , 가 2 ,  
가 5 , 가 2 .

:

가 가

(MRI) (US), (CT)  
7

(1). 가  
30 , 가 8 - 18% (2). 가

(3). 1996 1 2001 9  
US, CT MRI 7

(4). 7 가 , 21 - 43

(sebaceous cyst), , (desmoid)

( , ) (1).

2 (5) 가 , 6

, 3 , 1

5 17

5 , 2

1

2003 2 19

2003 9 2

11

1 ,

1, 6, 4.5

39, 7, 6 cm x 2.0 cm, 1.3 cm x 0.6 cm, 2.6 cm, 1.5 cm

US Acusson 128 XP/10 (Mountainview, California, U.S.A.) 가 2, 가 5, 2, 가 5, MHz 3, 가 2, CT Somatom Plus (Siemens, Erlangen, Germany) 100 - 120 ml, 1 (Ultravist, Schering Korea, Seoul, Korea) 2 - 3 ml/sec, 8 mm, pitch 1, 3, 가, MRI 1.5 Tesla Magnetom Vision (Siemens, Erlangen, Germany) T1 - (TR/TE, 610/14) (Fig. 1), T2 - (TR/TE, 4055/132) 가, CT (2 ) (4), 가, 2, 가, (Fig. 2), 1 (case5), MRI T1 - T2 - T1 -

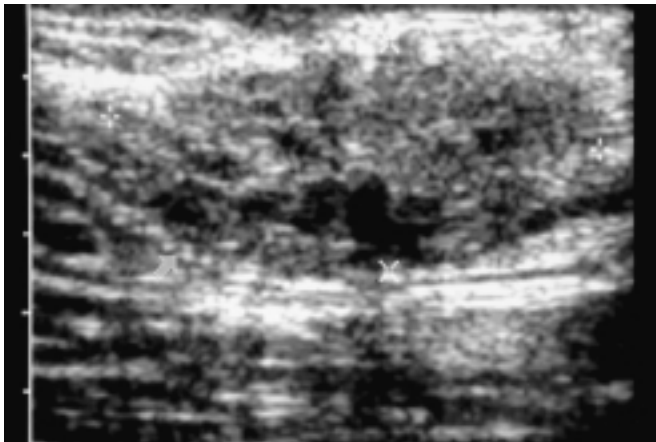
7, 4, 2, (desmoid), 1, (Table 1), 5, 1, 5, 2

**Table 1.** Summary of Clinical and Radiologic Findings in 7 Patients with Abdominal Wall Endometriosis

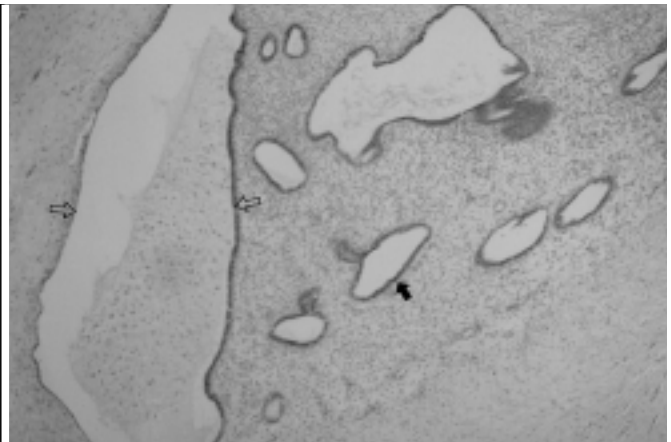
| Patient | Age (years) | Symptoms                      | Prior Operation                     | Preoperative Diagnosis | Radiologic Study | Radiologic Findings (diagnosis)   |
|---------|-------------|-------------------------------|-------------------------------------|------------------------|------------------|---|
| 1       | 30          | Mass near scar<br>Cyclic pain | C- section                          | Endometriosis          | US               | Heterogenous low echoic solid mass  |
| 2       | 34          | Mass in scar<br>Cyclic pain   | C-section                           | Endometriosis          | US               | Heterogenous low echoic solid mass  |
| 3       | 33          | Mass in scar                  | C- section                          | Soft tissue mass       | US               | Homogenous low echoic solid mass  |
| 4       | 34          | Mass                          | Appendectomy<br>in rectus abdominis | Desmoid                | CT               | Well enhancing solid mass   |
| 5       | 43          | Mass in scar<br>Cyclic pain   | C-section                           | Endometriosis          | CT               | Ill-defined enhancing solid mass  |
| 6       | 21          | Pain in scar<br>C-section     | Oophorectomy                        | Desmoid                | CT               | Mild enhancing solid mass   |
| 7       | 42          | Mass in scar<br>Cyclic pain   | C-section                           | Endometriosis          | CT<br>MRI        | Well enhancing solid mass<br>Low SI mass /c punctate high SI in T1WI<br>Intermediate to high SI in T2WI |

C-section: cesarean section US:ultrasonography CT:computed tomography MRI:magnetic resonance imaging

(Fig. 3). 7 US (3).  
 3 , CT MRI 1 CT 1  
 (71%). (hydrosalpinx),  
 30%가  
 (9),  
 (recto -  
 vaginal septum)  
 (1). 가 (7, 8).  
 30 , 가 8 - 18% (2).  
 (cul -  
 de - sac), , S -  
 가  
 (implants) 가



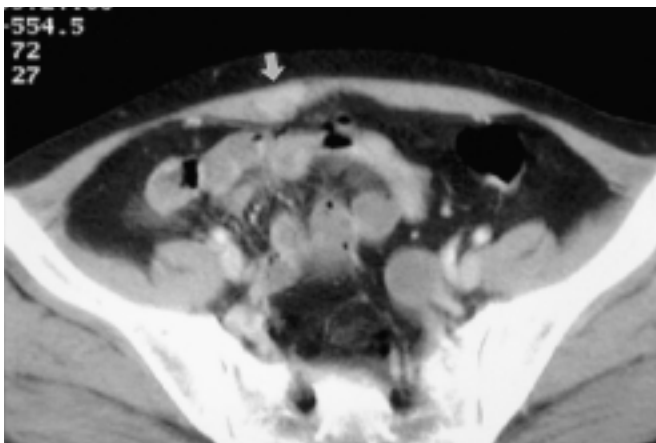
A



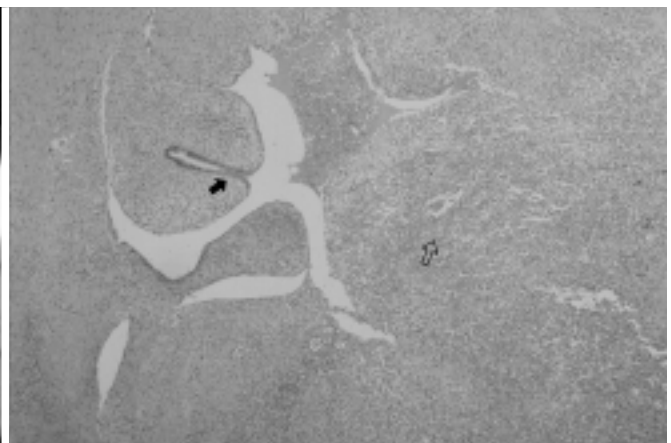
B

Fig. 1. A 34 -year-old woman with abdominal wall endometriosis (Case 2).

Ultrasonogram (A) shows a well - defined, low echoic solid mass with focal anechoic foci in subcutaneous layer of low abdominal wall near incision scar (arrow). Photomicrograph of histopathologic specimen (B) shows endometrial glands (solid arrow) with stromal components, hemorrhages and cystic components (open arrows). (H & E.  $\times 100$ )



A



B

Fig. 2. A 34 -year-old woman with abdominal wall endometriosis (Case 4).

Contrast - enhanced CT (A) shows a well - defined, enhancing solid mass in the right rectus abdominis muscle at lower abdominal wall (arrow). Photomicrograph of histopathologic specimen (B) shows endometrial glands with stromal components (solid arrow) and hemorrhages (open arrow). (H & E.  $\times 100$ )

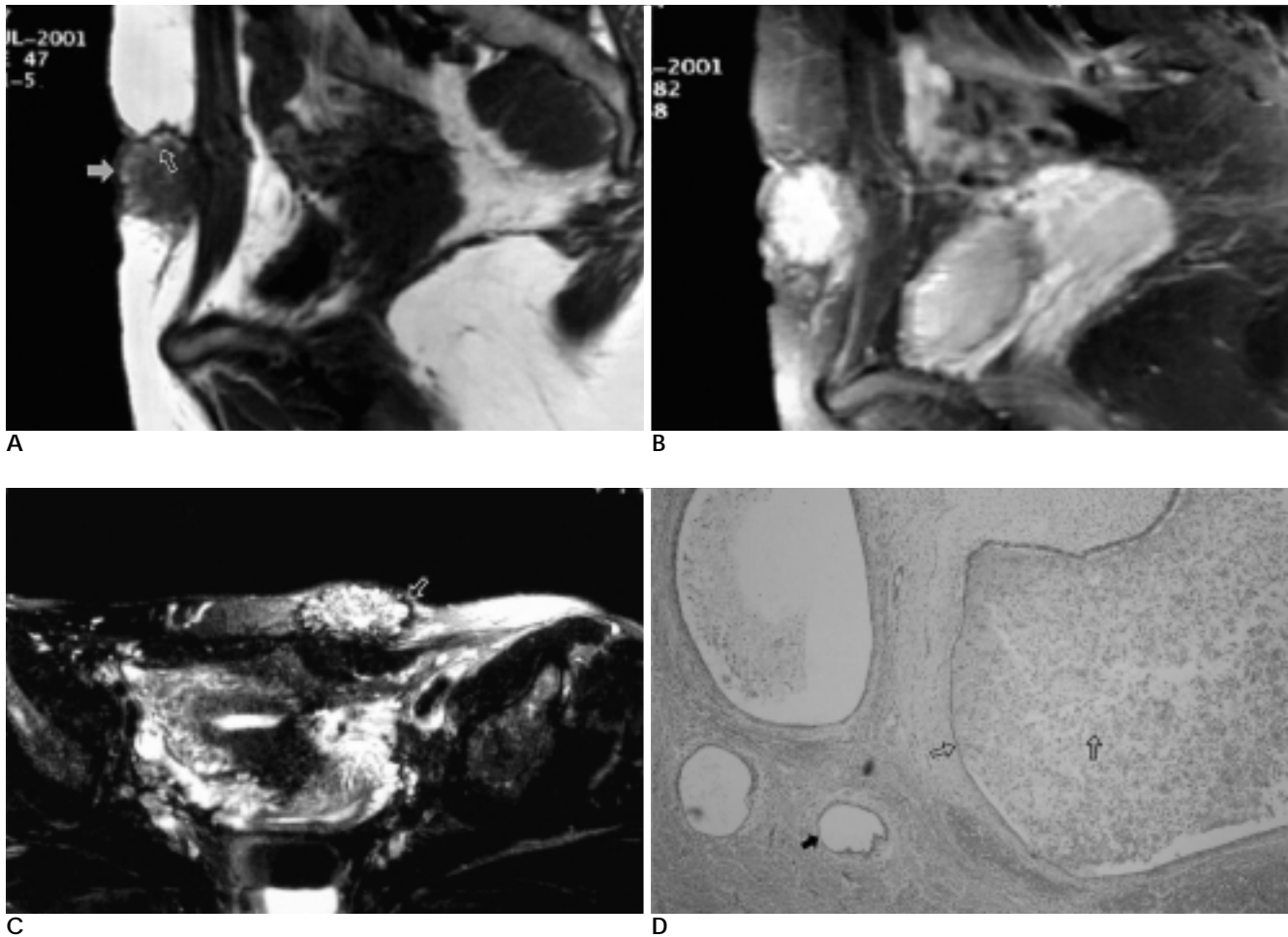


Fig. 3. A 42-year-old woman with abdominal wall endometriosis (Case 7).

T1-weighted sagittal MR image (A) (TR/TE, 610/14) shows a low signal intensity mass (solid arrow) with multiple punctate hyperintense foci (open arrow) and hypointense rim in the subcutaneous tissue at lower abdominal wall. Contrast-enhanced T1-weighted sagittal MR image (B) shows well enhancing solid mass. Axial T2-weighted MR image (C) (TR/TE, 4055/132) shows intermediate to high signal intensity mass with multiple punctate hyperintense foci and hypointense rim (open arrow). Photomicrograph of histopathologic specimen (D) shows endometrial glands (solid arrow) with cystic components and hemorrhages (open arrows). (H & E.  $\times 100$ )

(6). 가 가 (endometrial cyst)

(1, 4, 5), 0.03 - 0.4% (10), (3). US 가

(transport the - 가

ory) 가

(primitive pleuromultipotential mesenchymal cells) CT , ,

(11). 6 1

가 MRI 1 , 3 mm

, 90% T2 -

가 , CT

T1 - 가

(12).

, T1 -

, T2 -

T2

T2 -

T2 -

(Fig. 3).

가

, MRI T2 -

MRI

T2 -

(8).

MRI

US 가

MRI가

가

가

(desmoid)

(13).

(87%)

rectus abdominis internal oblique musculoaponeurotic structures가 가 . MRI T1 -

, T2 -

, CT 가

가

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## Radiologic Findings of Abdominal Wall Endometriosis<sup>1</sup>

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**Purpose:** To evaluate the imaging findings of abdominal wall endometriosis.

**Materials and Methods:** In seven of 17 patients with surgically proven endometriosis of the abdominal wall, we retrospectively reviewed the findings of radiologic studies such as abdominal US ( $n=3$ ), CT ( $n=4$ ), and MRI ( $n=1$ ). One patient underwent more than one type of imaging, apparently. The surgical history of the seven, and their symptoms and preoperative diagnosis were reviewed, and the size, location, margin and nature of the mass, and the contrast enhancement patterns observed at radiologic studies, were assessed.

**Results:** The chief symptoms were palpable abdominal wall mass ( $n=5$ ) and lower abdominal pain ( $n=2$ ) around a surgical scar. Previous surgery included cesarean section ( $n=5$ ), cesarean section with oophrectomy ( $n=1$ ) and appendectomy ( $n=1$ ). Masses were located in the subcutaneous fat layer ( $n=5$ ) or rectus abdominis muscle ( $n=2$ ), and their maximum diameter was 2.6 cm. Imaging findings, which correlated closely with the pathologic findings, included a well ( $n=5$ ) or poorly marginated ( $n=2$ ) solid mass, with a focal cystic area apparent in two cases.

**Conclusion:** Although imaging findings of abdominal wall endometriosis may not be specific for diagnosis, the presence of a solid abdominal mass in female patients of reproductive age with a history of surgery is a diagnostic pointer.

**Index words :** Abdominal wall, endometriosis  
Endometriosis

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