

1

가

가
(acquired immunodeficiency syndrome, AIDS)
가 가
(1).
40

50 가 (1).
5%
50%
(1, 2).



Fig. 1. Bilateral renal tuberculosis in a 70-year-old woman with dysuria
Contrast enhanced abdominal CT scan shows multiple wedge shaped hypodense attenuated lesions (open white arrows) in the right kidney and the contracted left kidney with rim calcifications of dilated calyces (black arrows).



Fig. 2. Renal tuberculosis in a 48-year-old man with left flank discomfort
Contrast enhanced abdominal CT scan shows focal parenchymal contraction of the left kidney with caliectasis (open arrows).

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2

1999 7 1 1999 9 30

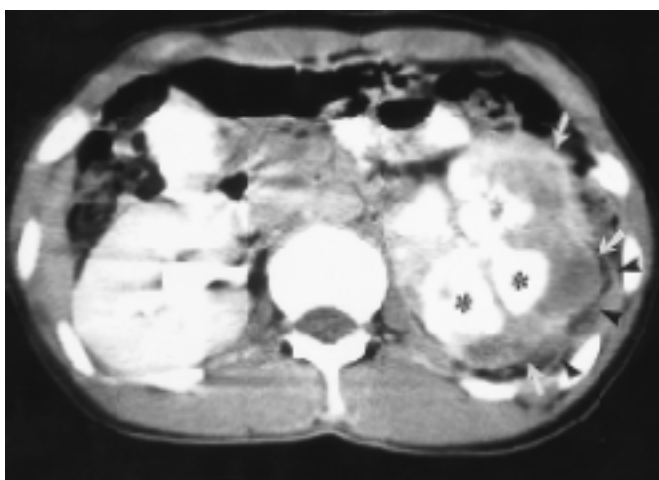
(3). (4, 5).

(uroepithelium) (infundibular stenosis) (caliectasis) CT MR

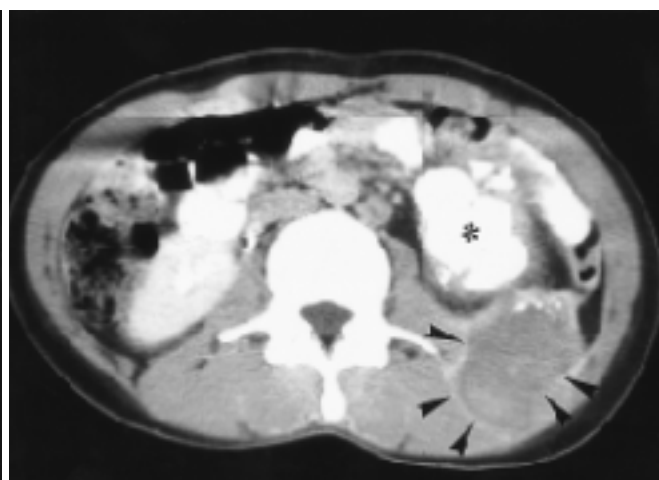
(1, 3). 가 (computed tomography, CT) (magnetic resonance, MR)

(1, 3). (periglomerular capillary) 가 Henle

(3), (renal pyramid) 가 (renal papilla)



A



B

Fig. 3. Renal tuberculosis in a 22-year-old woman with left flank pain and palpable mass
A. Contrast enhanced abdominal CT scan shows hypodense attenuated parenchymal lesions (arrows) with perirenal fat infiltration (arrowheads), and irregular calcifications (asterisks) in the dilated calyces.
B. Contrast enhanced abdominal CT scan shows calyceal calcifications (asterisk) and retroperitoneal abscess (arrowheads).



A



B

Fig. 4. Renal tuberculosis in a 37-year-old woman with left flank pain
A. Non-enhanced abdominal CT scan shows a hyperdense mass with calcifications (arrow) in the left kidney.
B. Contrast enhanced CT scan shows a isodense granuloma (white arrow) and adjacent caliectasis (arrowheads).

가
(1, 2, 6).

(Fig. 1)(1, 5, 7).

가
(Fig. 2).

(2, 5).

3), (xanthogranuloma-
tous pyelone-phritis)
(dystrophic)
CT 가
-15 +10 HU (Hounsfield unit)
(1, 3, 6, 7).

(Fig. 4),

(Fig. 5)(1-3, 6). MR

T1 T2-

가

가

(putty kidney, autonephrectomy s-

(Fig.

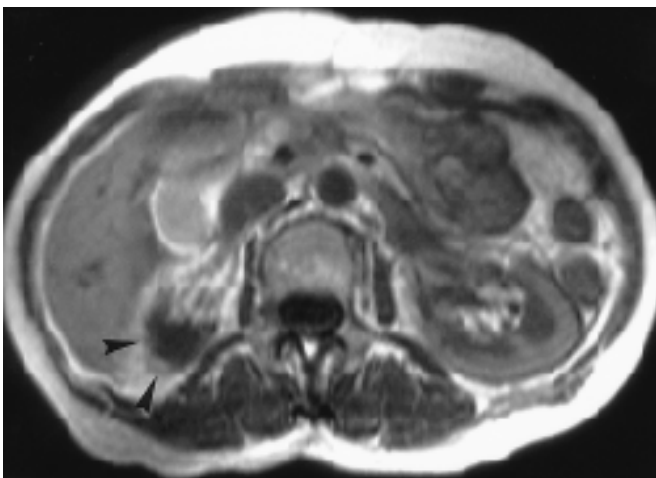
(Fig. 6).



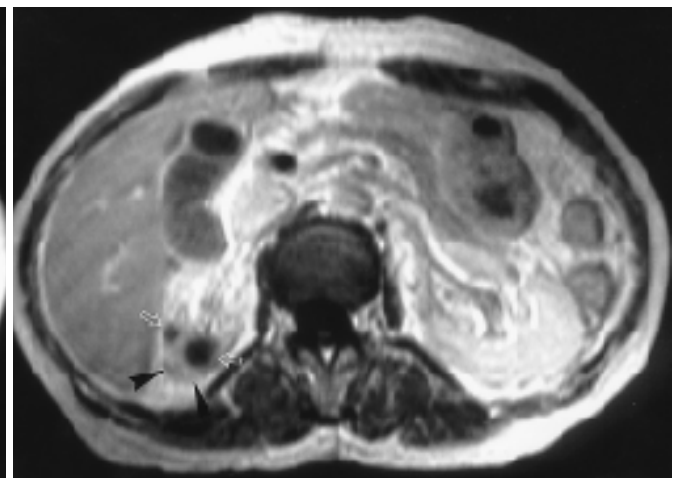
Fig. 5. Renal tuberculosis in a 54-year-old man with abdominal pain
Abominal CT scan shows calcified calyces (arrowheads) in the contracted right kidney and wall calcifications of the ipsilateral ureter (open arrow).



Fig. 7. Renal tuberculosis in a 37-year-old man with right flank pain
Contrast enhanced abdominal CT scan shows multiple focal caliectasis (arrowheads) of the right kidney.



A



B

Fig. 6. Right renal tuberculosis in a 66-year-old-woman with right flank pain.
A. T1-weighted image (TR:700, TE:17) shows a contracted right kidney (arrowheads).
B. Contrast enhanced T1-weighted axial image shows slightly enhanced renal parenchyma (arrowheads) with caliectasis (open arrows).

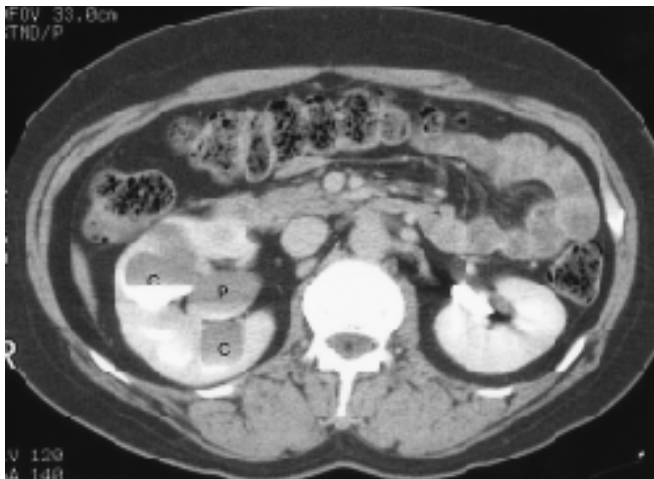


A

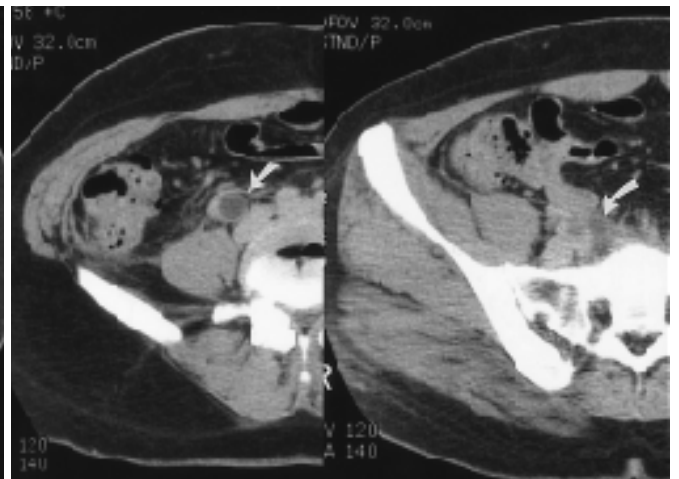


B

Fig. 8. Renal tuberculosis in a 19-year-old man with right flank pain
A. Contrast enhanced abdominal CT scan shows diffuse caliectasis (arrowheads) without dilatation of renal pelvis in right kidney.
B. Coronal T2-weighted image (TR:2300, TE:128) shows diffuse caliectasis and infundibular narrowing (small arrows) without dilatation of renal pelvis in the right kidney.



A



B

Fig. 9. Renal and ureteral tuberculosis in a 45-year-old woman with right flank pain
A. Contrast enhanced abdominal CT scan shows dilated calyces (C) and renal pelvis (P) in the right kidney.
B. Contrast enhanced CT abdominal scans show a dilated right ureter (arrow) due to ureteral stricture (curved arrow) and periureteral fat infiltration.

tate)

가

가

CT

(Fig. 7).

CT 0-10

HU,

가

10-30 HU,

50-120 HU

가

(2).

가

(1-3, 6)

-

가 가

(Fig. 8A).

MR

가

(1-3).

(Fig. 8B).

가

(Fig. 9A)(9).

1/3

가

(3).

(Fig. 10),

(9, 10).

가

(beaded appearance)

. CT

(Fig. 9B)

가

(Fig. 5).

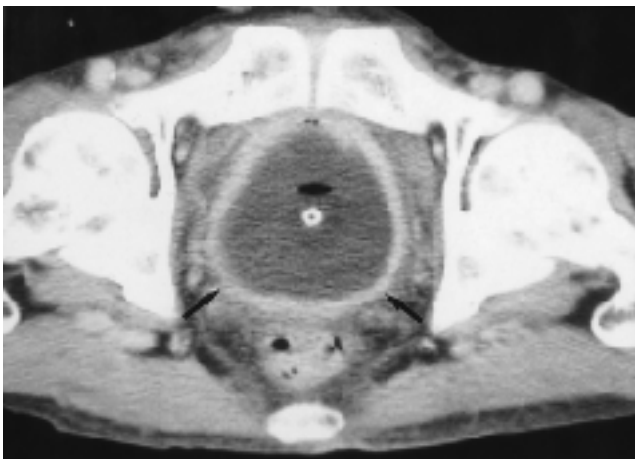


Fig. 10. Tuberculous cystitis in a 66-year-old man with dysuria
Contrast enhanced pelvic CT scan shows diffusely thickened wall (arrows) of the urinary bladder.

(Fig. 11).

CT

. MR

(3, 9).

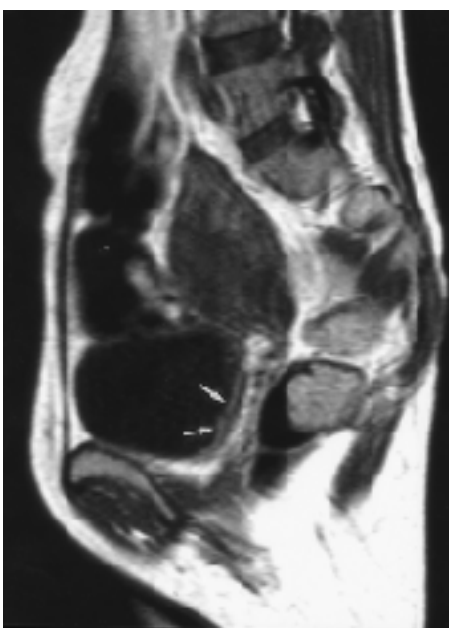
(3, 9). CT

(Fig. 12A).

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. CT

(Fig. 12B).

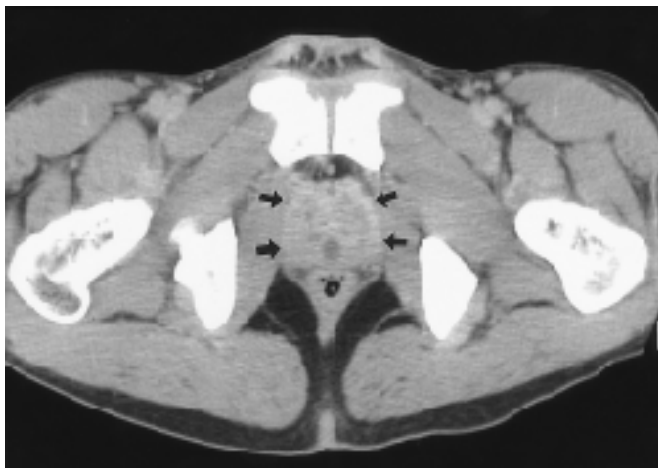


A



B

Fig. 11. Tuberculous cystitis in a 22-year-old woman with back pain
T1- (TR:500, TE:17) (A) and T2-weighted (TR:4000, TE:90) (B) sagittal MR images show irregular focal thickening (arrows) of the posterior wall of the urinary bladder.



A



B

Fig. 12. Tuberculous prostatitis and seminal vesiculitis in a 35-year-old man with dysuria

A. Contrast enhanced pelvic CT scan shows diffuse enlargement of a prostate (arrows) with heterogeneous hypodense lesions.

B. Contrast enhanced pelvic CT scan shows diffuse enlargement of both seminal vesicles (arrows) with multiple hypodense foci.

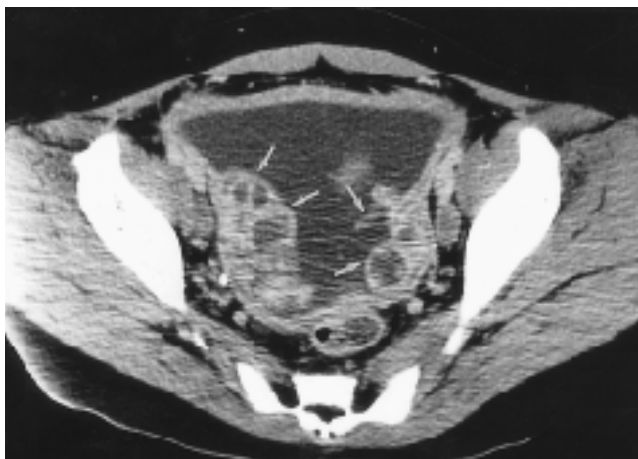


Fig. 13. Tuberculous tubo-ovarian abscess in a 32-year-old woman with abdominal pain

Contrast enhanced pelvic CT scan shows dilated both salpinges with hypodense abscesses (arrows).

가 . CT

MR

MR

CT MR

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(4, 5). CT

(hydrosalpinx)
(Fig. 13).

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CT and MR Findings of Genitourinary Tuberculosis¹

In Young Bae, M.D., Mi Young Kim, M.D., Soon Gu Cho, M.D.,
Chang Hae Suh, M.D., Won Hee Park, M.D.²

¹*Department of Radiology, Inha University College of Medicine*

²*Department of Urology, Inha University College of Medicine*

Genitourinary tuberculosis is a disease spread hematogenously from a small tuberculous abscess of the lung. The renal cortex is initially involved, and multiple granulomas form. Ultimately the cortex may cavitate and communicate with the collecting system, allowing downward extension of the infection and subsequent focal caliectasis with infundibular stenosis, ureteral fibrosis, and calcifications of urinary tract organs. The female genitourinary organ is also infected by the hematogenous spread of tuberculosis, the most common lesion being hydrosalpinx with salpingitis. The clinical and radiologic features of genitourinary tuberculosis may mimic other acute abdominal diseases, and the diagnosis of tuberculosis remains difficult. This report describes the ways in which computed tomography and magnetic resonance imaging are valuable aids in the recognition and diagnosis of genitourinary tuberculosis.

Index words : Genitourinary system, CT
Genitourinary system, MR
Genitourinary system, infection

Address reprint requests to : Mi Young Kim, M.D., Department of Radiology Inha Hospital
#7336 Taepyung-dong, Sujung-gu, Sungnam City, Kyunggi-do 461-192, Korea.
Tel. 82-342-720-5225 Fax. 82-342-755-2812 E-mail: mykimrad@unitel.co.kr

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