

: 1 1

2

가

43

1

가

4 - 8%

(Fig. 2).

(35%)

(19%)

8% (1 - 4, 6).

43

(24%),

5 -

(cross - striations)

trichrome

desmin, myoglobin, myosin,

myoD1(clone: 5.8A)

1

Vincristine, ifosfamide, adriamycin

2

MRI

43

가 20

LDH가 1868 IU/L (: 180 - 460 IU/L)

가

CT

10 × 10

(prevertebral space)

(Fig. 3).

CT

cm

가

1.5 cm

1 - 2 cm

(Fig. 1A).

S

가

(Fig.

1B).

가

가

1 - 4 cm

MRI

T1

, T2

, Gd - DTPA

(3),

2 - 6

14 - 18

, 2/3가 6

T1

(Fig. 1C). ^{99m}Tc - MDP

가

(5).

가

가

(6).

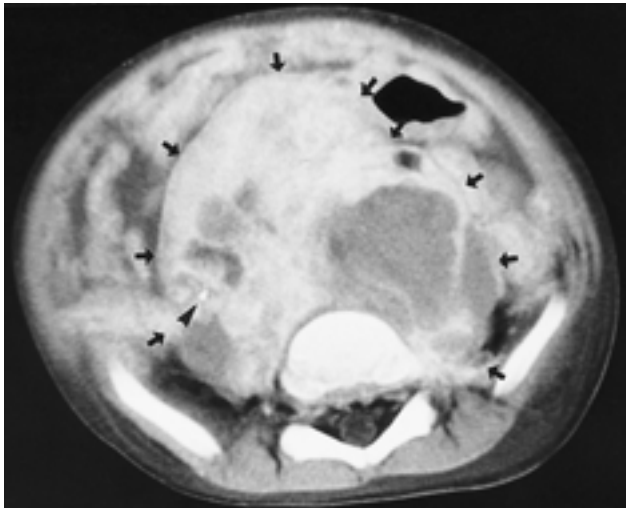
(7).

1

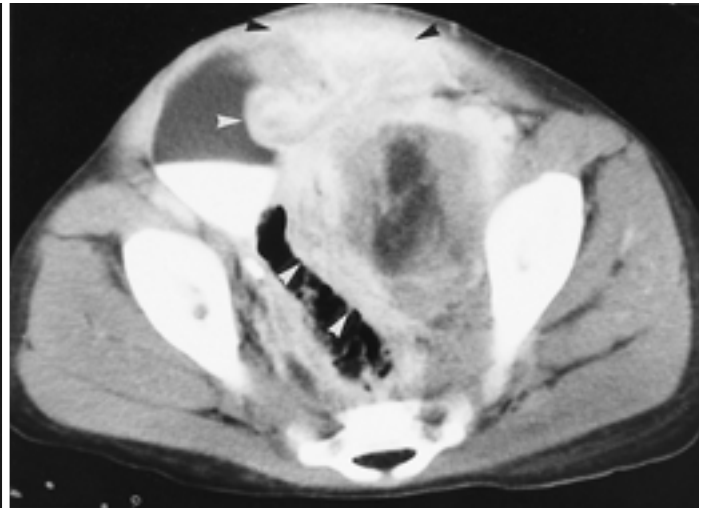
2

2000 2 22

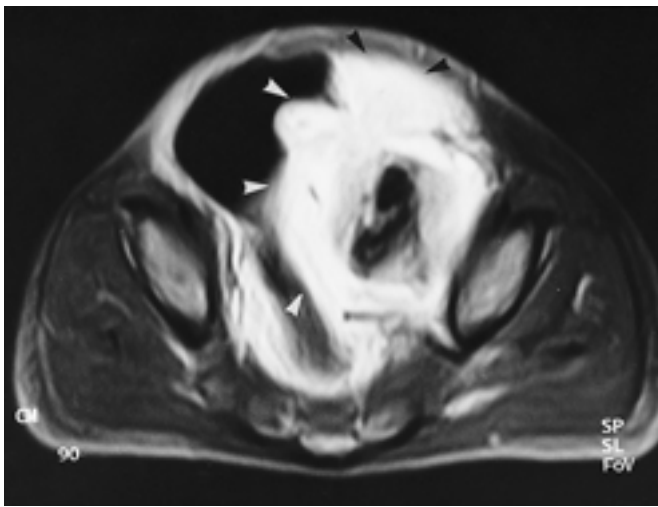
2000 9 14



A



B



C

Fig. 1. A. Contrast enhanced CT scan at the level of the pelvic inlet shows huge retroperitoneal mass (arrows) containing multiple necrotic low density lesion which encases right ureter (arrowhead). Omental cake and peritoneal thickening with ascites are noted, but no evidence of calcification.

B. Contrast enhanced CT scan through the lower pelvis demonstrates obliteration of the fat planes between the necrotic pelvic mass and urinary bladder, sigmoid colon, and anterior abdominal wall (arrowheads).

C. Gadolinium enhanced T1 weighted axial image at the same level of B. shows obliteration of the fat planes (arrowheads) more distinctly than CT scan.

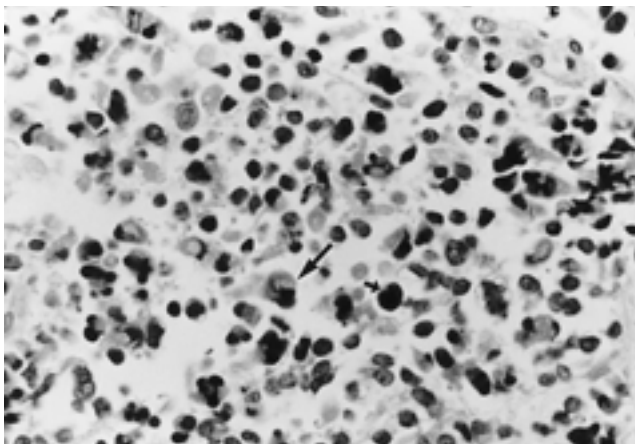


Fig. 2. Photomicrograph of histopathologic sections shows small cells with dark nuclei (small arrow) alternative with larger cells with vesicular nuclei and abundant acidophilic cytoplasm (large arrow). (Hematoxylin-eosin stain; original magnification, $\times 400$)

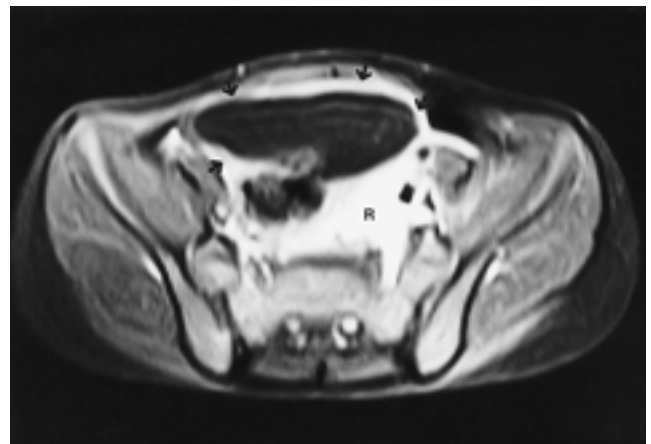


Fig. 3. Gd-DTPA enhanced axial MR image after chemotherapy shows residual tumor (R) and diffusely thickened wall of the urinary bladder (arrows).

가 40 - 60% , 90 - 95%
 가 catecholamine
 가 (2). cat -
 Fernandez (8) echolamine 가
 (50 - 60%)
 (1, 5, 6).
 가 가 50% 가 (6),
 (7). (65 - 80%), 25%
 (5). (vital vessel)
 가 가 (5).
 IRS(international rhabdomyosarcoma study) MRI
 가 가 1 , 가
 가 가
 2 ,
 3 , 가 4
 가 (1, 4, 56 - 65%
 5). IRS 4 가 5
 IRS 72 - 74% (11).
 4가
 (4), desmin, myoglobin, myosin, myoD1(clone: 5.8A) 가 가 (4).
 CT
 (muscle density) (9), MRI
 T1 catecholamine 가 가
 , T2
 , Gd - DTPA T1
 (10).
 CT
 , T1
 , T2 , Gd - DTPA T1
 Lane (9) 90 CT
 가
 , catecholamine
 가 (7),
 가 90%

1. Pappo AS, Shapiro DN, Crist WM, Mauer HM. Biology and therapy of pediatric rhabdomyosarcoma. *J Clin Oncol* 1995;21:23-2139
2. . Symposium: Common malignant tumors in children. 1998;147-156
3. Baker ME, Silverman PM, Korobkin M. CT of prostate and bladder rhabdomyosarcomas. *J Comput Assist Tomogr* 1985;9:780-783
4. Papiro AS, Shapiro DN, Crist WM. Biology and treatment of rhabdo-myosarcoma. *Pediatr Clin North Am* 1997;44:953-972
5. Wexler LH, Helman LJ. *Rhabdomyosarcoma and the undifferentiated sarcomas*. In Pizzo PA, Poplack DG. *Principles and practice of pediatric oncology*. 3rd edition. Philadelphia: Lippincott-Raven Publisher 1997:799-824
6. Lerner SP, Hayani A, O'hollaren P, et al. The role of surgery in the management of pediatric pelvic rhabdomyosarcoma. *J Urol* 1995; 154:540-545
7. Tannous WN, Azouz EM, Homsy YL, Kiruluta HG, Smith DG. CT and ultrasound imaging of pelvic rhabdomyosarcoma in children. *Pediatr Radiol* 1989;19:530-534
8. Fernandez CH, Sutow WW, Merino OR, George SL. Childhood rhabdomyosarcomas. *Cancer* 1975;123:588-596
9. Lane RH, Stephens DH, Reiman HM. Primary retroperitoneal neoplasms: CT findings in 90 cases with clinical and pathologic corre-

lation. *AJR Am J Roentgenol* 1989;152:83-89

10. Fletcher BD, Kaste SC. Magnetic resonance imaging for diagnosis and follow-up of genitourinary, pelvic and perineal rhabdomyosarcoma. *Urol Radiol* 1992;14:263-272

11. Crist WM, Garnsey L, Beltangady MS, et al. Prognosis in children with rhabdomyosarcoma: a report of the intergroup rhabdomyosarcoma studies I and II. *J Clin Oncol* 1990;8:443-452

J Korean Radiol Soc 2000;43:639 - 642

Embryonal Rhabdomyosarcoma of the Retroperitoneum in a Child : A Case Report¹

Joon-Sik Lee, M.D., Mee-Eun Kim, M.D., Hae-Wook Pyun, M.D., Il-Gee Lee, M.D.,
Hy-Jin Kim, M.D., Jong-Gil Lee, M.D., Ik-Su Kim, M.D.²

¹Department of Diagnostic Radiology, Fatima Hospital, Taegu

²Department of Pathology, Fatima Hospital, Taegu

Rhabdomyosarcoma is the most common soft tissue sarcoma occurring in children, though retroperitoneal rhabdomyosarcoma is rare. We experienced a case of embryonal rhabdomyosarcoma of the retroperitoneum in a 43-month-old child, and describe the CT, MRI and pathologic findings.

Index words : Myosarcoma

Neoplasm, in infants and children

Retroperitoneal space, neoplasm

Address reprint requests to : Joon-Sik Lee, M.D., Department of Diagnostic Radiology, Fatima Hospital
302-1, Sinam-dong, Dong-ku, Taegu 701-600 Korea.
Tel. 82-53-940-7167 Fax. 82-53-954-7417