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Tel: 02) 3779-1192, Fax: 02) 783-0252, E-mail: cmcos@catholic.ac.kr 2002 , 가

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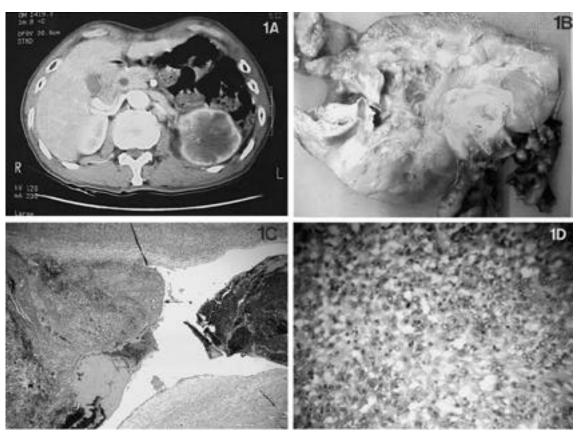


Fig. 1. Transitional Cell Carcinoma involoving left kidney

- ${\bf A.}$  Computed axial tomography shows the greatly enlarged and deformed left kidney, measuring about  $12 \times 10$ cm
- **B.** Excised left kidney,  $12 \times 9 \times 5$ cm, shows an ill-defined, partially cystic mass,  $10 \times 7$ cm, in the upper pole. The renal capsule is invaded by the mass. The renal calyces and pelvis are obliterated by the mass.
- **C.** Photomicrograph shows invasive transitional cell carcinoma in renal pelvis. The tumor cells invade renal parenchyme and ureter (H&E, × 40).
- **D.** High-power view shows high grade(grade 3 by WHO) invasive transitional cell carcinoma with multiple mitosis, atypia and pleomorphism (H&E, × 400).

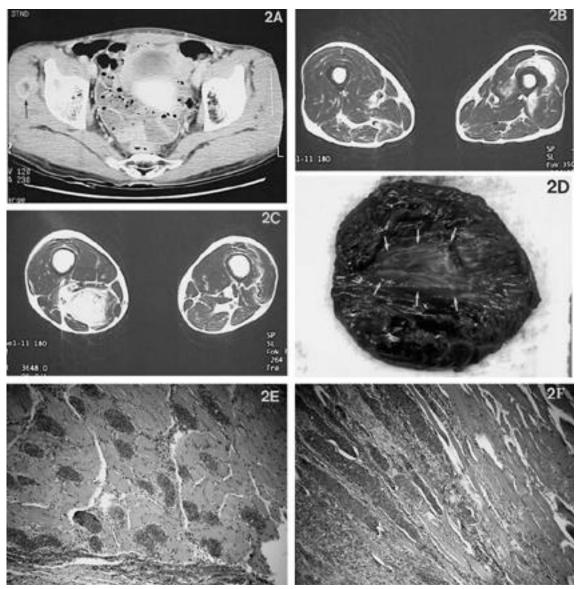


Fig. 2. Skeletal Muscle Metastasis

- **A.** Computed axial tomography shows a mass in the left gluteus minimus, showing low density in core and high density in periphery.
- **B.** T2 weighted MR axial image shows a relatively ill-defined, high signal intensity mass in the left vastus intermedius. The mass somewhat spreads to surrounding soft tissues.
- C. T2 weighted MR axial image shows a ill-defined, high signal intensity mass in the right hamstrings.
- **D.** A tumor mass in deltoid muscle. The mass shows rough brown external surfaces streaked with thin gray strands. The boundary is ill-defined and intermingled with surrounding normal tissue.
- $\textbf{E.} \ Photomicrograph \ shows \ multiple \ tumor \ cell \ clusters \ scattered \ in \ skeletal \ muscle(H\&E, \ \textbf{x}\ 40).$
- F. Photomicrograph shows tumor cell columns between skeletal muscle fibers(H&E, ×40).

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## **Abstract**

## Multifocal Skeletal Muscle Metastasis from Kidney Cancer (Transitional Cell Carcinoma) - A Case Report -

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Although direct skeletal muscle invasion by carcinoma is well recognized, distant metastasis to skeletal muscle is uncommon. Furthermore, multifocal skeletal muscle metastasis is a very exceptional event. Some factors such as variable intra-muscular blood flow, mechanical factors including turbulent blood flow and muscle contraction, intra-muscular acidic condition, lactic acid, protease inhibitors in the extra-cellular matrix were proposed as causes of the rarity of distant metastasis to skeletal muscle. We report here a case of a 67 year old male who had multifocal skeletal muscle metastasis from the transitional cell carcinoma of left kidney.

**Key Words**: Skeletal muscle metastasis, Kidney cancer, Transitional cell carcinoma, Metastatic cancer

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