Table 3. Tumor Markers

	17 Sept. 1998	26 Sept. 1998	Normal range
AFP (ng/ml)	1.8		< 10
CEA (ng/ml)		1.02	0 - 4.6
CA19.9 (μ g/ml)			
CA125 (μ g/ml)			
CA153 (μ g/ml)		6.7	< 28

clear on auscultation. The abdomen was rather soft and was not tender. The bowel sound was normoactive. The liver and spleen were not palpable. A bulging mass measuring 8 x 8 cm was palpable over the right flank area. It was an ill-defined elastic to firm mass with slight tenderness. The extremities were freely movable. No pitting edema was found. The neurological examination was normal.

At admission, laboratory examination revealed anemia and abnormally increased serum LDH level (Tables 1, 2). Tumor markers and AC sugar were within normal ranges (CEA, 1.02 ng/ml; CA15-3, 6.7 ug/ml; AC sugar, 128 mg/dL) (Table 3). Abdominal sonography showed a right renal tumor and a left renal cyst without a space-occupying lesion in the liver. Intravenous pyelography (IVP) showed a huge right renal tumor. Pelvic CT scan revealed right hydroureter and distal obstructive uropathy. No lymphadenopathy

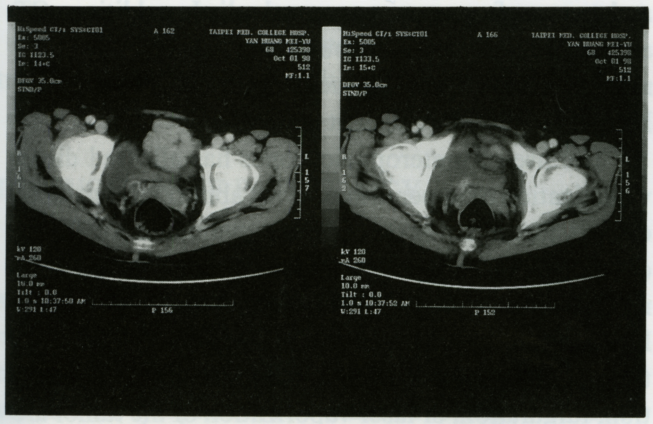

Fig. 2. Abdominal CT scan showing an ill-defined infiltrative mass at the right suprarenal fossa with direct invasion to the liver and right pararenal extension. Massive ascites and enlargement of retroperitoneum lymph nodes can be seen.

was noted in the pelvic wall. EKG showed left ventricular hypertrophy. Cystoscopic study showed no filling defect of the urinary bladder. Bone scan revealed no metastatic disease. She received right ureteroscopic biopsy on 29 September, and the pathologic examination revealed a carcinoma of undetermined origin. She then received right radical nephroureterectomy on 8 October. The pathologic examination showed a sarcomatoid variant of transitional cell carcinoma of the right kidney and ureter with renal hilar and para-aortic lymph node metastasis and right renal vein thrombosis. No adrenal gland was found in Gerota's fascia. The postoperative condition was rather smooth. The patient refused any further treatment.

At the last admission on 25 November 1998, carcinomatosis was noted by abdominal CT scan which showed an ill-defined infiltrative mass of the right suprarenal fossa with direct invasion to the liver and right pararenal extension. Massive ascites and enlargement of the retroperitoneal lymph nodes were also noticed (Fig. 2). Abdominal sonography showed multiple hypoechoic hepatic metastatic nodules over the right lobe (measuring up to 3 - 5 cm in diameter) and left lobe. In addition, chest x-ray and KUB revealed right pleural effusion and poor bowel peristalsis, respectively. The laboratory data showed progressive deterioration of renal function and poor nutrition condition (BUN, 60 mg/dL; Cr, 3 mg/dL; Alb, 2.6 g/dL). Unfortunately, she began to suffer from dyspnea after 1 December. Change in conscious and a drop in blood pressure occurred on 2 December, and she expired on 3 December 1998.

DIFFERENTIAL DIAGNOSIS AND DISCUSSION

The presence of even a few red blood cells in urine (hematuria) is abnormal and requires further investigation. Although gross hematuria is more alarming, microscopic hematuria is no less significant. Hematuria is a danger sign that cannot be ignored. Carcinoma of the kidney or urinary bladder, calculi, and infection are a few of the conditions in which hematuria is typically demonstrable at the time of presentation. It is impor-