

이식신 조직검사후 발생한 신기능 감소를 동반한 거대혈종

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Huge Perirenal Hematoma which Caused Renal Dysfunction after Percutaneous Needle Biopsy in Transplanted Kidney

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Introduction: Percutaneous biopsy of the kidney is a standard procedure to evaluate renal parenchymal disease in native kidneys and in renal transplants. The percutaneous approach using real-time ultrasound guidance and automated biopsy device is the standard method of obtaining tissue in patients without complications. This procedure remains safe with a few risks to the patients and provides adequate tissue for diagnosis in at least 95% of cases. However, serious complications, although rare, may occur in 2.7% of the patients and the majority of these are related to bleeding. The common complications of percutaneous needle renal biopsy include hematuria, perinephric hematoma, arteriovenous fistula, aneurysm and infections. We report a case of huge perirenal hematoma with renal dysfunction after percutaneous needle renal biopsy in transplanted kidney.

Case: A 63-year old man presented with fever, chill, rhinorrhea from 3 days ago. He underwent a kidney transplant operation donated from his wife last year. He had been on regular hemodialysis for 3 years due to hypertensive end-stage renal disease. He was normotensive. Heart rate was 84 per minute. Respiratory rate was 20 per minute. Body temperature was 39°C. He was diagnosed upper respiratory tract infection and had been taken conservative management. Ultrasound sonography revealed no cysts, stones, hydronephrosis or other structural abnormality in transplanted kidney. The complete blood counts showed WBC 13,270 /uL, hemoglobin 13.5 g/dL, platelet 135,000 cells/uL. The coagulation profile was normal. The blood chemistry revealed a serum creatinine level of 3.0 mg/dL from 1.1 mg/dL last 1 month. His urine output was good. He was performed a percutaneous ultrasound-guided allograft renal biopsy on the 3rd day in hospital. We had used 16G automated gun needle and gotten 5 pieces of tissue. The histologic diagnosis was acute rejection type IA. On 4 days after biopsy, his serum creatinine elevated up to 8.2 mg/dL and his urine output decreased to 300 ml/day. Abdominal computed tomography angiography showed a 8.5X2.8 cm hematoma at lateral aspect of transplanted kidney. Tc-99m DTPA Renal Perfusion & Renogram showed marked decreased perfusion and excretion in transplanted kidney. We intended radiologic intervention of drainage catheter insertion to perirenal hematoma, but the procedure failed. He performed acute hemodialysis two days. His serum creatinine level decreased to 1.7 mg/dL and urine output increased to 2,700 ml/day after 5 days from acute hemodialysis. On the 22nd day in hospital, He was discharged with improvement.

Key Words: 신장조직검사, 혈종, 출혈

Kidney biopsy, Hematoma, Bleeding