

## 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. 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 ESRD. He was diagnosed upper respiratory tract infection and had been taken conservative management. Ultrasound sonography revealed no structural abnormality in transplanted kidney. The CBC showed WBC 13,270 /uL, Hb 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 8.5 X 2.8 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 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.

## Do We Still Use The Camitta's Criteria For Severe Aplastic Anemia?

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**Background:** The criteria by Camitta for diagnosis in severe aplastic anemia (SAA) has been used since 1976. However, there has been no attempt to verify the Camitta's criteria, that the survival in patients with SAA may differ by absolute neutrophil count (ANC), platelet count, and corrected reticulocyte count (CRC), which are components of the Camitta's criteria. **Patients and Method:** 117 SAA patients diagnosed by the Camitta's criteria were analyzed, retrospectively. Response by immunosuppressive therapy (IST) or stem cell transplantation (SCT) significantly affected overall survival (OS) by multivariate analysis ( $p=0.008$ ). Therefore, we excluded treatment responders for analysis. Finally, 92 SAA patients were analyzed, including non-responders by IST or SCT and who were treated with supportive care by using univariate and multivariate analyses. **Results:** The median age of analyzed patients was 54.5 years. Male to female ratio was 1:1. The median follow-up duration was 23.48 months (range 0.27-1345). The median ANC, platelet count, and CRC were 394/uL, 12,000/uL, and 0.39%, respectively. In the univariate and multivariate analyses, ANC by more than or less than 500/uL was the only significant factor for OS ( $p=0.015$ , HR 2.694, 95% C.I. 1.209-6.002). There were no significant differences in OS between groups that were diagnosed SAA by ANC+platelet count, ANC+CRC, and platelet count+CRC. **Conclusion:** The criterion of ANC <500/uL is the only significant factor affecting OS. Thus, ANC should be an essential, not an optional criterion for diagnosing SAA. This study suggests the possibility that the Camitta's criteria be modified. Studies in large cohorts are needed to transform the Camitta's criteria.