

# Acute Myeloid Leukemia Post Renal Transplant: A Case Report

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**Disclosure:** No conflict of interest to declare.



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**TTS2024** ISTANBUL TURKEY  
September 22-25  
30<sup>th</sup> International Congress of The Transplantation Society

- Solid organ transplant recipients are at increased risk of carcinomas due to factors like immunosuppression, Epstein-Barr virus infection, or the presence or recurrence of cancer in the transplanted tissue.<sup>1</sup>
- The incidence of leukemia in post-transplant patients is less but it is five times more prevalent than the general population.<sup>2</sup>
- Of all the types of leukemias, AML constitutes 43% of post-transplant recipients.<sup>3</sup>

- **Age:** 55 years
- **Gender:** Female
- **Complaints :** Shortness of breath, abdomen pain (epigastric) since 1 week
- **History :** Renal transplantation
- **Post transplant immunosuppressant's:** Tacrolimus, mycophenolate mofetil
- **Comorbidities:** T2DM, hypertension, coronary artery disease
- **Vitals (on admission):** BP 150/90 mmHg, Pulse 90/min, O2 saturation 98%.

- **Chest HRCT:** Pulmonary edema, early pulmonary hypertension
- **Peripheral blood smear:** absolute monocytosis with blasts (20%), consistent with AML
- **Genetic testing:** AML confirmed (IDH2 p.Arg140Gln, ASXL1 mutations)
- **Treatment:** *Chemotherapy-* Azacitidine (100 mg for 7 days), Venetoclax; *Supportive care-* PRBC, SDPC

Laboratory test	Values
Hemoglobin	8.8 mg/dL
Total leukocyte count	26.06 x10 <sup>9</sup> /L
Serum lipase	818 U/L
Serum amylase	165 U/L
Serum urea	25 mg/dL
Serum creatinine	0.64 mg/dL

- AML in post-transplant patients is rare but critical to diagnose early.
- Management strategy in post-transplant acute myeloid leukemia should target reducing the immunosuppressive therapies or replacing myelotoxic agents with lesser toxic drugs.
- Blood disorders should raise a suspicion of malignancies in post-transplant recipients.