# Right-sided infective endocarditis associated with an implanted venous port in a young patient with refractory acute myeloid leukemia

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## Background

Central venous access devices are essential in the management of patients with hematological malignancies, undergoing intensive chemotherapy or preparation for hematopoietic stem cell transplantation. However, their use is associated with bloodstream infections, especially in patients that are immunocompromised.

We report a rare case of venous port-associated right-sided infective endocarditis (IE) in a young patient with refractory acute myeloid leukemia (AML), awaiting rescue allogeneic hematopoietic stem cell transplantation (allo-HSCT).

## Diagnosis

1. Persistent profound neutropenia, thrombocytopenia, coagulation abnormalities.
2. Gram-negative bacteremia, positive blood cultures from both the venous port and peripheral samples.
3. Afebrile and denied any symptoms of infection. Systolic murmur over the tricuspid area.
4. TTE - echogenic structures in the right heart. TEE - mobile vegetation 13 mm on the tricuspid valve.

## Management

1. Removal of the implanted venous port, after appropriate hemostatic preparation.
2. Empirical antimicrobial therapy with meropenem, gentamicin, caspofungin (ESC guidelines).
3. No indication for surgical intervention.
4. Identification of *Roseomonas mucosa,* opportunistic pathogen, in blood cultures and catheter tip analysis.

## Conclusions

This case emphasizes the importance of sterile technique in handling a venous port, and microbiological evaluation of venous port-derived samples, in immunocompromised patients.

Careful physical examination combined with echocardiography enables diagnosis of right-sided infective endocarditis. Appropriate antimicrobial therapy and timely removal of the infected venous port are crucial for successful conservative management.


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