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A Case Report of TRALI

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Background: Transfusion-related acute lung injury (TRALI) is an underrecognized yet potentially fatal complication of blood transfusion. The 2019 revised classification differentiates TRALI type I (no risk factors) from TRALI type II (pre-existing or concurrent risk factors for ARDS). We present a case of TRALI type II following Red Blood Cell (RBC) transfusion in a patient with cancer, sepsis, and suspected endocarditis.

Case History: A 64-year-old woman with metastatic breast cancer treated with doxorubicin was hospitalized for fever and acute kidney injury. During hospitalization, echocardiography showed a floating mass on the posterior mitral leaflet with severe mitral regurgitation. She was treated with ceftaroline and daptomycin for suspected endocarditis. On hospital day 20, she received RBC transfusion for anemia (Hb 6.2 g/dL). Five hours later, she developed sudden hypoxemic respiratory failure requiring high-flow oxygen. Chest imaging revealed new bilateral infiltrates consistent with pulmonary edema. No signs of fluid overload or cardiac decompensation were observed. Despite non-invasive ventilation, the patient died a few days later. Based on clinical presentation and exclusion of alternative diagnoses, TRALI type II was considered the most likely diagnosis.

Discussion: Clinicians must remain vigilant for TRALI even in non-plasma transfusions, especially in patients with systemic inflammatory conditions.

References

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