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Hypoxic Respiratory Failure from suspected TACO in the PACU

Transfusion-related circulatory overload (TACO) is a recognized complication of blood transfusions, characterized by fluid overload leading to pulmonary edema and cardiac dysfunction. This abstract presents a case study of a patient who underwent dilation and curettage (D&C) for a missed abortion and subsequently developed TACO in the post-anesthesia care unit (PACU) after receiving two units of packed red blood cells (PRBCs).

A 32-year-old female presented with acute abdominal pain and hypovolemia. Imaging confirmed a missed abortion necessitating urgent surgical intervention. The patient underwent D&C to control hemorrhage and remove the retained POC. Perioperatively, she received two units of PRBCs for hemoglobin of 7.7 g/dL without a known baseline.

The patient exhibited signs of respiratory distress in the PACU, including dyspnea, tachypnea, and oxygen desaturation. Physical examination revealed bilateral crackles on lung auscultation, and chest X-ray confirmed pulmonary edema. Hemodynamic monitoring and arterial blood gas demonstrated elevated blood pressure and alveolar-arterial gradient, respectively. TACO was diagnosed based on clinical criteria.

Immediate management involved administering supplemental oxygen and diuretic therapy to reduce fluid overload. The patient responded well to treatment, with respiratory distress resolution and improved oxygenation. Subsequent monitoring revealed normalized blood pressure and resolution of pulmonary edema.

This case underscores the importance of vigilance for TACO following blood transfusions, even when a patient's characteristics lend themselves to a comparatively low aggregate odds ratio for TACO. Prompt recognition and intervention are crucial to prevent morbidity and mortality associated with TACO. Healthcare providers should be aware of risk factors, clinical manifestations, and management strategies to ensure timely diagnosis and appropriate treatment of this potentially life-threatening complication.