



IACH



Pulmonary Leukostasis in Hyperleukocytic Acute Leukemia: A Prospective Clinicoradiological Case Series

R.FARCHOUKH; K.ELAKEL; H.ALHARRAR; Z. GUESSOUS, K. EL ALAOUI, M. AHNACH, EL MEKKOUDI

Clinical Hematology, Mohammed VI ,Mohammed VI International University Hospital (HUIM6), Mohammed VI University of Health Sciences (UM6SS), Rabat

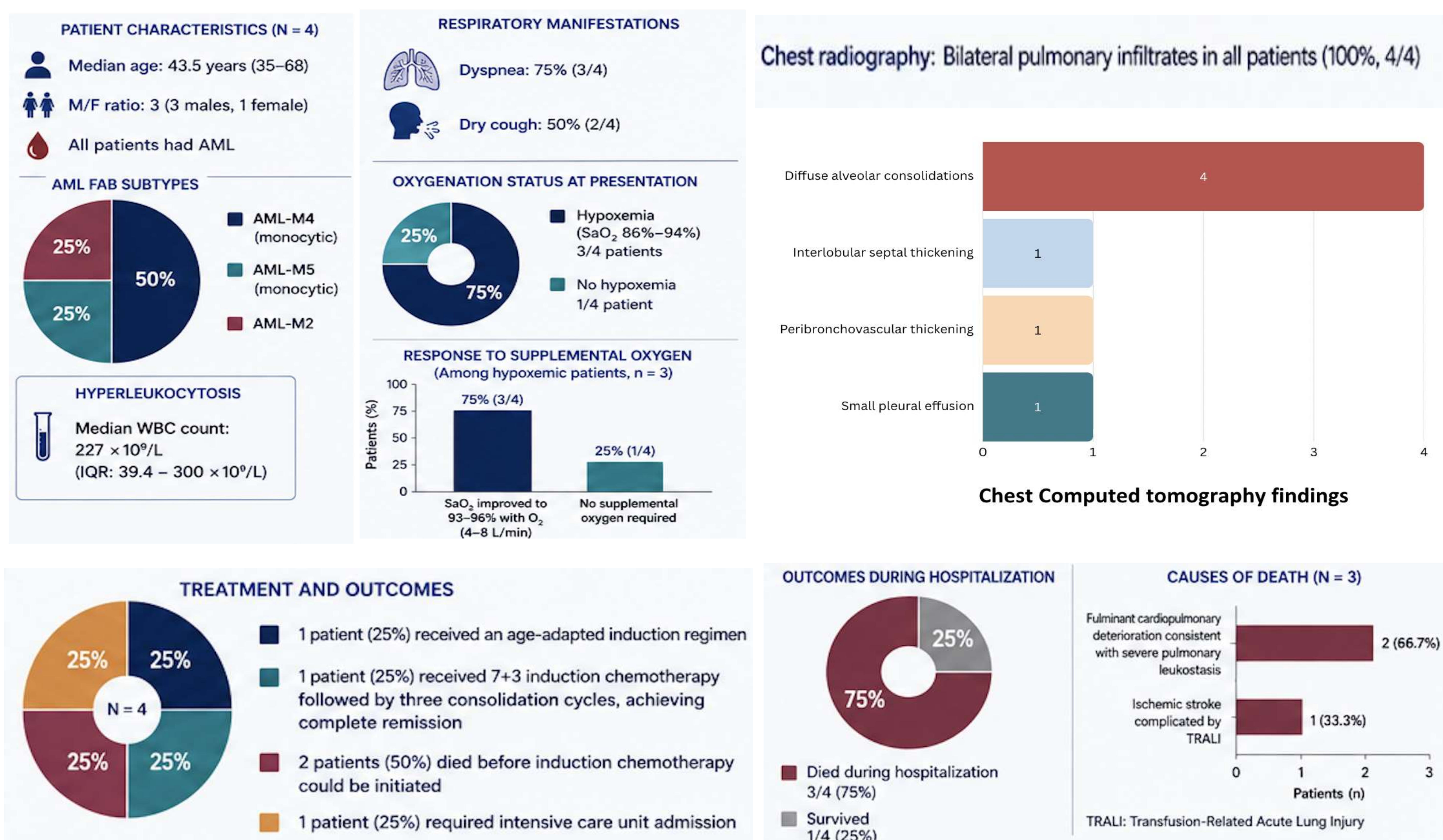
Introduction

Pulmonary leukostasis is a rare but life-threatening complication of hyperleukocytic acute leukemia, occurring when leukemic blasts aggregate and obstruct the pulmonary microvasculature. This microvascular occlusion leads to hypoxia, endothelial injury, and rapidly progressive respiratory failure, with early mortality if unrecognized. However, because radiological findings are often nonspecific—frequently mimicking infection or pulmonary edema—prompt clinical recognition remains challenging, underscoring the need for a high index of suspicion in patients with marked leukocytosis and acute respiratory symptoms.

Patients and Methods

- Prospective, single-center, descriptive study.
- Study period of 6 months, from November 2026 to July 2026.
- patients diagnosed with pulmonary leukostasis in the setting of newly diagnosed hyperleukocytic AML
- Department of Clinical Hematology, Mohammed VI International University Hospital (HUIM6)
- Data were collected from the medical records of patients followed in the Department of Clinical Hematology, as well as from Sillage and LIMS.

Results



Conclusion

Pulmonary leukostasis should be suspected in every patient with hyperleukocytic acute myeloid leukemia presenting with acute respiratory symptoms and diffuse bilateral pulmonary infiltrates. Although imaging findings are not pathognomonic, their recognition in the appropriate clinical context may facilitate rapid cytoreductive treatment. Despite intensive supportive care, pulmonary leukostasis remains associated with substantial early mortality.

Contact

Dr Farchoukh Rihab : Dr.rihab.farchoukh@gmail.com Dr Kaoutar Elakel: Elakel.kaoutar@gmail.com