



Angioinvasive aspergillosis in a patient with acute myeloid leukemia and influenza B virus infection

Samuel Santos de Freitas¹, Ana Paula Zanardo^{1,2}, Rafael Domingos Grandó^{1,2}

A 32-year-old male patient was hospitalized for worsening symptoms of odynophagia, fever, and malaise. Laboratory tests confirmed acute myeloid leukemia. The patient then presented with severe hypoxemic respiratory failure caused by influenza B virus and rhinovirus infection, requiring mechanical ventilation and extracorporeal membrane oxygenation. The patient was then started on treatment with all-trans-retinoic acid, hydroxyurea, dexamethasone, and broad-spectrum antibiotics. Antifungal therapy was added because of persistent fever, worsening radiological findings, and galactomannan-positive BAL fluid. One week later, a follow-up chest X-ray showed an air crescent sign within a parenchymal consolidation. A CT scan of the chest confirmed cavitory lesions with solid content and an air component around them, characterizing the air crescent sign, which is consistent with angioinvasive aspergillosis in patients undergoing treatment for and in the recovery phase of hematologic malignancies, as a result of increased granulocytic activity. The differential diagnosis in this setting includes other invasive fungal

diseases, pulmonary infarction, necrotizing pneumonia, and lung abscess.

Aspergillus infection is a life-threatening condition in immunosuppressed patients.⁽¹⁾ Aside from biological testing, CT is particularly useful because the finding of a halo sign together with a positive galactomannan test can allow early diagnosis and treatment. The air crescent sign is a finding that suggests good therapeutic response in these patients.^(2,3)

AUTHOR CONTRIBUTIONS

SSF: conceptualization; investigation; and drafting and reviewing of the manuscript. APZ and RDG: conceptualization; investigation; and reviewing of the manuscript. All authors read and approved the final version of the manuscript.

CONFLICTS OF INTEREST

None declared.

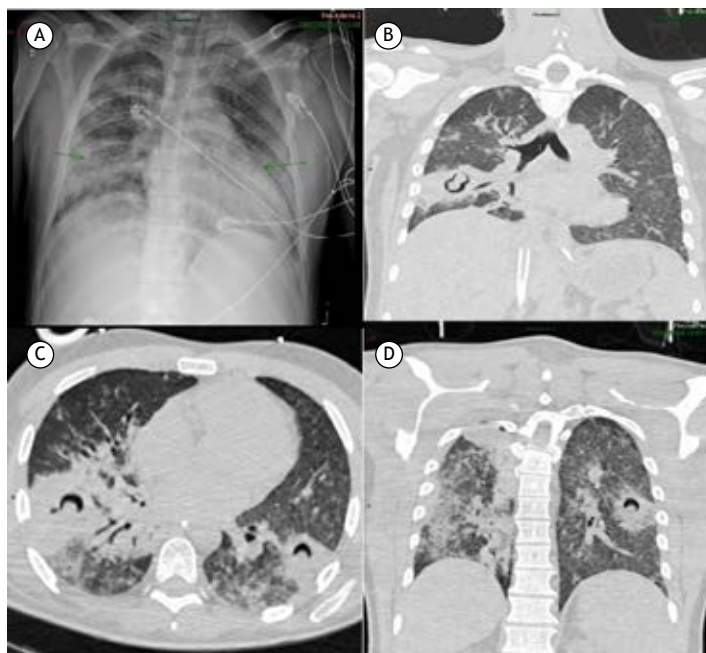


Figure 1. Air crescent sign on chest X-ray (in A) and chest CT scans (in B, C, and D).

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1. Hospital Moinhos de Vento, Porto Alegre (RS) Brasil.

2. Programa de Pós Graduação em Ciências Pneumológicas, Universidade Federal do Rio Grande do Sul – UFRGS – Porto Alegre (RS) Brasil.