Aspergillosis in Acute Myelogenous Leukemia

R. Rudolf Knapp
I. Isolde Bangerl
D. Dieter zur Nedden
D. David Nachbaur
D. Dietger Niederwieser

Department of Radiodiagnosis, Radiology II, and Division of Clinical Immunobiology and Bone Marrow Transplantation, Department of Internal Medicine, University Hospital, Innsbruck, Austria

Correspondence to: Dr. Rudolf Knapp, Department of Radiodiagnosis, Radiology II, University Hospital, Anichstr. 35, A-6020 Innsbruck (Austria)

Transverse scan of the lower thorax of a 48-year-old female patient suffering from acute myelogeneous leukemia. The anterior segment of the lower lobe shows a cavity with a diameter of approximately 1.5 cm containing an amorphous mass. During aplasia after induction chemotherapy, the patient developed a pulmonary infiltrate which was treated successfully with antibiotics and amphotericin B. After hematological reconstitution, a CT scan was performed and pulmonary aspergillosis was diagnosed.
Bronchopulmonary aspergillosis manifests in three different radiological and clinical patterns: (1) as a saprophytic infestation in preformed cavities; (2) in immunocompromised hosts as an intravascular-growing fungus called invasive aspergillosis with a radiological pattern mimicking pulmonary infarction caused by bronchopulmonary embolism, and (3) as an allergen that initiates asthma or allergic alveolitis [1].

In our case, pattern 2 changed into pattern 1 during the hematological restitution. This could be confirmed by the superior spacial resolution of the CT image. After clinical reconstitution, the cavity containing the fungus ball was resected.

Reference