

## Invasive Aspergillosis: an uncommon but serious form of Aspergillosis

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**Background:** Invasive Aspergillosis is a respiratory tract infection caused by inhalation of the spores of the *Aspergillus* fungus. It is an uncommon but serious form of Aspergillosis.

**Case History:** We describe a case of a 70-year-old man hospitalized with worsening dyspnea and lower back pain. His medical history included: - refractory anaemia in erythropoietin therapy and thrombocytopenia in haematological follow-up postschemic dilated heart disease; - chronic renal failure (IV stage); type 2 diabetes mellitus undergoing insulin treatment. The patient was a former smoker. Home therapy: prednisone 12.5 mg/day, -ace inhibitor, beta-blocker, calcium channel blocker, a loop diuretic, gastro protective statin, -acetylsalicylic acid suspended for the onset of epistaxis and thrombocytopenia. Physicians performed the following exams in the emergency room: blood chemistry tests, chest x-ray showing evidence of nodular opacity (approximately 25mm) in the right mid-lung field and a CT scan of the spine was performed which showed an anterosuperior fracture of the L5 vertebra with a preserved posterior wall. . After a period of well-being, the patient suddenly experienced decreased vision with confusion, and respiratory failure and fever appeared. During hospitalization, the patient underwent high-resolution chest CT and subsequent chest CT with contrast medium with a serial demonstration in a few days of progressive increase in pulmonary thickening and appearance of the radiological sign of the reverse halo and simultaneous finding of cerebral CT of blurred areas parenchymal hypo density

with the bilateral occipital cortico-subcortical site. The following were performed: - blood chemistry tests, -culture tests (blood cultures and urine cultures with negative results), quantiferon test negative, - *Aspergillus* research with negative galactomannan, weak positivity in the search for 1-3 D glycan, and bronchoscopy. Neurological, neurosurgical, infectious disease and nephrological consultations were also carried out. We immediately started therapy with intravenous voriconazole in light of the patient's clinical picture and immunosuppressive state. Unfortunately, we requested resuscitation consultancy due to the rapid evolution of respiratory failure and the sensory worsening. The patient was admitted to resuscitation and ventilated with invasive mechanical ventilation. Unfortunately, after three days of admission to intensive care, the patient presented an exit.

**Discussion:** We intend to focus on the speed and severity of invasive Aspergillosis that must be suspected in all immunosuppressed patients. The neurological and respiratory conditions already owe it to clinical suspicion to initiate the most effective and early antimicrobial therapy possible.

### References

1. Jose Cadena, George R Thompson 3rd, Thomas F Patterson (2021) Aspergillosis: Epidemiology, Diagnosis, and Treatment. *Infect Dis Clin North Am* 35:415-434.
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