



SUCCESSFUL MANAGEMENT OF ASPERGILLOSIS IN POST RENAL TRANSPLANT PATIENT : A CASE REPORT

Sidra Rashid Khan, Muhammad Tassaduq Khan, Rashid Bin Hamid, Naranjan Lal, Syed Hassan Farooq

Renal transplant Unit, Dow University of Health Sciences, Karachi, Pakistan,

Correspondence:

Sidra Rashid Khan, Renal Transplant Unit, Dow University of Health Sciences, Karachi, Pakistan

Email: sidrah-rashid02@gmail.com

DOI: 10.38106/LMRJ.2024.6.1-09

Received: 29.02.2024

Accepted: 26.03.2024

Published: 31.03.2024

Key Words: Aspergillosis, kidney transplant, immunocompromised

ABSTRACT

This case describes a 60-year-old man with a history of diabetes and hypertension who underwent a kidney transplant in September 2023. The patient presented with fever, cough for 5 days, empirical antibiotics were started but complaints were not resolved so fungal markers were sent, which showed elevated galactomannan levels, necessitating the initiation of voriconazole therapy. X Ray chest showed patch along with cavitary lesion which was further confirmed by CT Scan Chest which confirmed a cavitary lesion. This case report emphasizes the importance of considering fungal infection as a differential diagnosis in immunocompromised patients and achieving good results with appropriate treatment.

INTRODUCTION

Immunocompromised patients, such as organ transplant recipients, are at greater risk for opportunistic infections, including fungal infections(1). If left untreated, fungal infections can cause life threatening illness leading to death. The purpose of this report is to highlight the importance of identifying fungal infections early in post transplant patients and to start appropriate antifungal treatment at the earliest (2).

Case Presentation

A 60 yrs old male patient, who underwent kidney transplant in september 2023, (was declared end stage renal disease secondary to diabetes and hypertension), presented to us with complains of fever and productive cough since past 5 days, he was admitted in hospital, baseline investigations were sent and was started on antibiotic therapy empirically.

His initial laboratory workup was within normal limits, only C Reative Protein (CRP) was raised and X- Ray chest showed right lower lobe patch and cavity formation, when after approximate bacterial coverage his symptoms not recovered then his fungal markers were sent and Computed Tomography Scan (CT) Chest with contrast was done. Galactomannan and BD Glucan were raised and CT Chest showed right lower lobe cavitary lesion. His sputum for AFB smear was checked and HIV serology was done it was negative then he was started on voriconazole and BAL was done , samples of BAL were sent for galactomannan they also came out be positive, hence the diagnosis of aspergillosis was made. Patient responded to antifungal therapy and his respiratory symptoms were improved. Patient got discharged and continued on followed up.

DISCUSSION

People who have been immunologically suppressed, especially those who have received organ transplants, are at high risk of developing opportunistic infections which include viral, fungal and rare bacterial infections(1). Fever and respiratory symptoms in such patients, as seen in this report, should always raise suspicion of opportunistic infections. Early diagnosis and prompt initiation of appropriate therapy are critical in improving patient outcomes. When clinical suspicion is high for

opportunistic infections always fungal markers should be sent (3). Additionally, radiographic studies such as chest CT scans can provide important information about the extent and nature of the disease (4). Pulmonary aspergillosis presents with a variety of clinical forms including invasive pulmonary aspergillosis, chronic necrotising aspergillosis (subacute invasive pulmonary aspergillosis), aspergilloma, chronic cavitary pulmonary aspergillosis (CCPA) and allergic bronchopulmonary aspergillosis(6). Differential diagnosis among these forms is sometimes difficult due to overlapping presentations. The case presented here was an aspergilloma, and met the definition of simple aspergilloma instead of CCPA , since the patient had only one pulmonary cavity, few symptoms and no radiological demonstration of progression.

In our case we screened our patient for fungal invasion for which we performed MRI Brain with contrast to rule out dissemination in brain(5),as it was limited disease so it responded well to voriconazole (2).

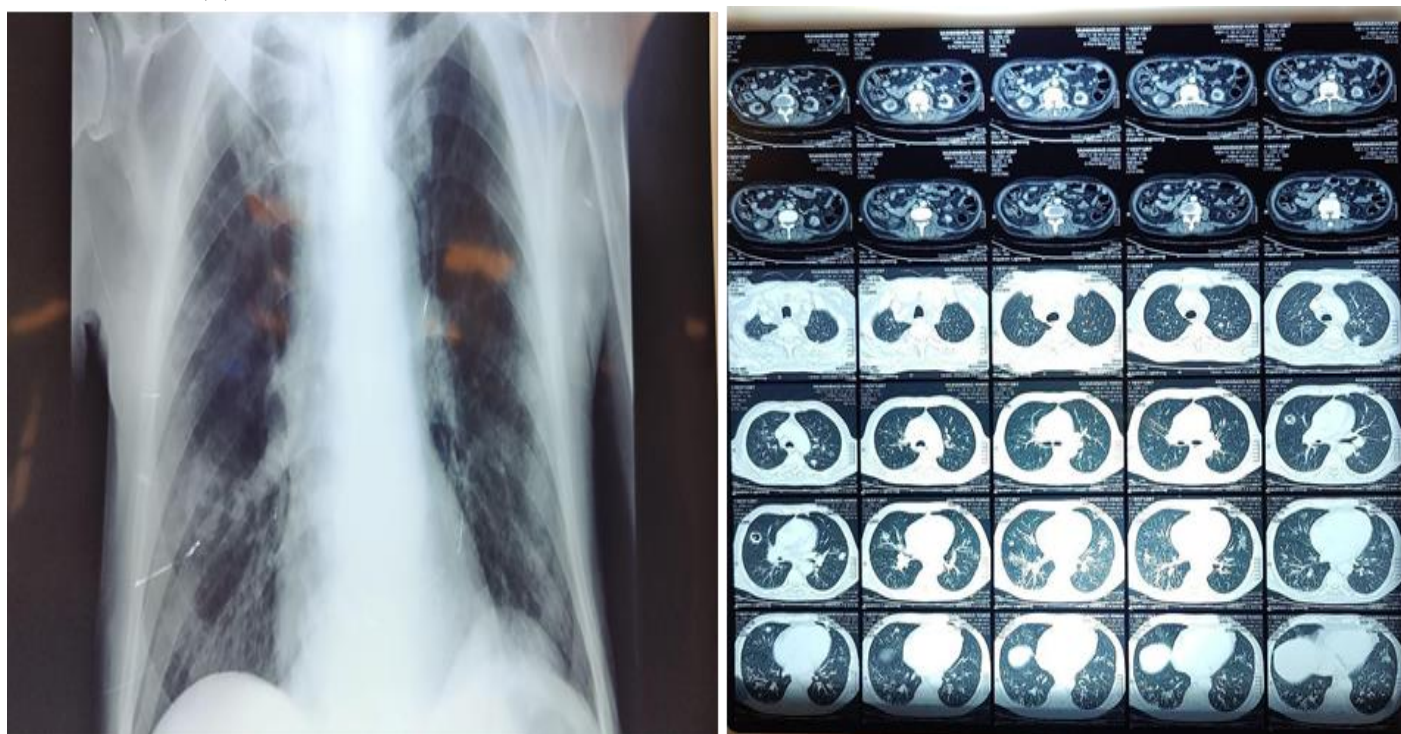


Figure 1. X-ray chest PA view and Computed Tomography of patient presenting with Aspergillosis after renal transplant

CONCLUSION

This case report highlights the importance of identifying fungal infections in immunocompromised patients and initiating appropriate antifungals as soon as possible. High galactomannan levels and signs of fungal infection on lung tomography raised suspicion of fungal infection. Initiation of voriconazole therapy resulted in a good response and relief of symptoms. Early recognition and appropriate treatment of fungal infections is important to improve patient outcomes in immunocompromised individuals.

REFERENCES

1. Betancourt BY, Garofoli AC, Sandhu JS, Boma N, Sy AM. Pulmonary aspergillosis presenting with recurrent haemoptysis. Case Reports. 2015;2015:bcr2015211249.

-
2. Clancy CJ, Nguyen MH. Finding the “missing 50%” of invasive candidiasis: how nonculture diagnostics will improve understanding of disease spectrum and transform patient care. *Clinical infectious diseases*. 2013;56(9):1284-92.
 3. Kumar S, Muthu V, Bansal YS, Mehta N, Arora V. Invasive pulmonary aspergillosis with brain dissemination in an immunocompetent host. *Autopsy and Case Reports*. 2021;11.
 4. Patterson TF, Thompson III GR, Denning DW, Fishman JA, Hadley S, Herbrecht R, et al. Practice guidelines for the diagnosis and management of aspergillosis: 2016 update by the Infectious Diseases Society of America. *Clinical infectious diseases*. 2016;63(4):e1-e60.
 5. Raveendran S, Lu Z. CT findings and differential diagnosis in adults with invasive pulmonary aspergillosis. *Radiology of Infectious Diseases*. 2018;5(1):14-25.
 6. Silva RF. Fungal infections in immunocompromised patients. *Jornal Brasileiro de Pneumologia*. 2010;36:142-7.