DOI: 10.5152/TurkThoracJ.2019.384

[Abstract:0391] PP-312 [Accepted:Poster Presentation] [Respiratory System Infections]

Invasive Pulmonary Aspergillosis Case Related to Anti-TNF Use

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Introduction: Invasive pulmonary aspergillosis (IPA) is a clinical condition with high mortality, despite the appropriate treatment following the inhalation of aspergillus conidia. Aspergillosis-related disease development may be observed in patients with impaired immune response, such as patients receiving chemotherapy due to hematological malignancies bone marrow or solid organ transplantation. We report a case of IPA that developed for a long time due to the use of anti-TNF.

Case Presentation: A 54-year-old male patient presented to the emergency department with complaints of weakness loss of appetite and oral intake for 1 week he was diagnosed with rheumatoid arthritis, He has been using anti-TNF for 4 years.5 days ago external center was started anti-tbc treatment. Physical examination;SAO2:98,respiratory rate: 22/min, blood pressure:140/80 mmhg, pulse:110/min, fever: 38.3°C. Respiratory sounds were decreased in the right hemithorax and edema was present in the bilateral lower extremity. Chest x-ray showed increased opacity in the right upper and middle zones, thorax CT, heterogeneous cavitary area in right upper lobe apex and consolidation areas in right upper and lower lobe. The patient was admitted to the intensive care unit with leukocytosis, hypoalbuminemia, anemia and electrolyte disturbances. Fiberoptic bronchoscopy was performed, trachea seen with millimeter white nodular lesions, main carina, right main bronchus entrance, lower lobe superior and upper lobe covered with white mucosal lesions, bronchial lavage from right main bronchus, mucosa biopsy from right upper lobe taken. Anti-tbc treatment terminated. Aspergillus Species was found in sputum culture and fungal spores and hyphae were detected in bronchial mucosa bx pathology and he was diagnosed as IPA. Voriconazole IV was firstly started at a dose of 6 mg/kg 2x1and continued at a dose of 4 mg/kg 2x1. His clinical condition improved and control graph showed regression after 10 days.

Conclusion: Pulmonary aspergillosis is classified in 4 forms: Allergic bronchopulmonary aspergillosis, aspergilloma, invasive and semi-invasive aspergillosis. Invasive aspergillosis is an infectious disease which is usually seen in patients with immunodeficiency caused by Aspergillus type fungi and is associated with high mortality. Consolidation, frosted glass and cavitations can be seen in CT scans, while areas of consolidation or nodular opacity can be seen on chest radiography in early period. Voriconazole is the first choice of treatment. Alternative therapy can be used as isavuconazole, itraconazole, amphotericin B lipid formulation, itraconazole, kaspofungin, micafungin and posaconazole. Invasive aspergillosis is an infection in immunocompromised patients. Because of the high mortality, risk factors should be evaluated quickly and it should be kept in mind that the use of anti-tnf causes immunosuppression. If clinical suspicion is high, treatment should be initiated even if the diagnosis isn't clear.

Keywords: Anti-TNF, pulmonary, aspergillosis