



# Case Presentation

Arda KAYA MD.

Ege University Medical Faculty, Department of Infectious Diseases and Clinical Microbiology, Izmir, Turkiye

ESCMID Postgraduate Education Course, Sepsis & Immuno-comprised Hosts: Challenges in 2024  
18-19 May 2024, Antalya/TURKEY

# Introduction

- Neutropenic enterocolitis in immunosuppressed patients can occur as a secondary complication of the primary disease or as a result of cytotoxic agents used in treatment.
- Fever and abdominal pain are the most common symptoms.
- In this syndrome, where both aerobic and anaerobic bacteria, as well as fungi can be involved, early diagnosis and treatment positively influence the prognosis.

- This presentation includes neutropenic enterocolitis in a patient diagnosed with aplastic anemia, who experienced a prolonged hospitalization due to cutaneous mucormycosis and invasive aspergillosis.

# Case

- C.O.
- 28 years old, male
- Aplastic anemia
- **Complaints:** Fever, diarrhea and abdominal pain

# Medical History

- Diagnosed with aplastic anemia on 16/10/2023
- Followed up with invasive aspergillosis and cutaneous mucormycosis between 03/11/2023 and 05/01/2024
- ASCT was planned and the patient was being monitored in the hematology department to complete preoperative preparations. (03/02/2024)

- Body temperature 39.2°C, blood pressure 120/78mmHg, SpO<sub>2</sub>: 97%, heart rate 96 beats per minute.
- Laboratory findings
  - white blood cell count 520/μL
  - neutrophil count 110/μL
  - platelet count 1000/μL
  - CRP level 139mg/L (0-5mg/L)

- Patient was consulted to us after neutropenic colitis was diagnosed in abdominal CT scan.
  - Meropenem 3\*1g, vancomycin 4\*500mg and liposomal amphotericin B 1\*5mg/kg
- Surgery was not considered by the general surgery clinic.

# Day 8 of treatment

- During follow-up, the patient's diarrhea improved, and there were no new infectious complaints.



- The recurrence of fever was noted
- Carbapenem-resistant *K.pneumoniae* was isolated in peripheral and catheter blood cultures.
  - Treatment revised to high-dose meropenem and Polymyxin B
  - Catheter was removed

1. Klebsiella pneumoniae

(S: DUYARLI, I: ORTA DUYARLI, R:DİRENÇLİ)

Antibiyotik Adı	1. Mik/Zon Çapı
Ertapenem	R (32)
Siprofloksasin	R (I)
Amoksisilin/klavulanik asit (Oral)	R (>=64.0)
Sefuroksim	R (>=64.0)
Kolistin	I (<1)
Ampisilin	R (>=32.0)
Amoksisilin/klavulanik asit	R (>=64.0)
Piperasilin/tazobaktam	R (>=128.0)
Sefepim	R (>=32.0)
İmipenem	R (32)
Meropenem	R (32)
Seftriakson	R (>=64.0)
Amikasin	R (32.0)
Trimetoprim/sulfametoksazol	R (>=320.0)
Seftazidim	R (>=32.0)
seftazidim avibaktam	R (0)

# Day 7 of Polymyxin B

- Due to the failure to achieve microbiological eradication in the blood cultures of the patient with ongoing fever during follow-up
  - Tigecycline was added to treatment
- Thorax and abdominal CT scans
  - No additional infectious focus developed
  - Neutropenic enterocolitis findings were regressed.

- The patient with no fever and laboratory response was reassessed on day 20 of treatment due to severe abdominal pain and fever.
- Repeated abdominal CT scan revealed progression of neutropenic enterocolitis and colon perforation
  - the patient underwent urgent surgery

- Following the operation, the patient developed respiratory distress and required inotropic support.
- The patient passed away on the second day of inotropic support due to septic shock and subsequent cardiac arrest.

# Conclusion

- Physical examination is very important in neutropenic patients, and should be performed everyday to assess infection.
- These patients should be isolated to prevent hospital-acquired infections.
- Every physician should consider source control with antibiotherapy.



Thank you for your attention

