

Abstract Submission

Title: Neutropenic enterocolitis in patients with acute leukemia, clinical features and outcomes.

MENDEZ GA⁽¹⁾, NIVEYRO C⁽¹⁾, VILLALBA APESTEGUI PA⁽¹⁾, ACOSTA RI⁽¹⁾, MARTIN VI⁽¹⁾,
VILLALBA CV⁽²⁾, BERNARD HI⁽³⁾.

⁽¹⁾ Infectious Diseases Service, Hospital Escuela de Agudos Dr. Ramón Madariaga. Posadas, Misiones Argentina.

⁽²⁾ Hematology Service, Hospital Escuela de Agudos Dr. Ramón Madariaga. Posadas, Misiones Argentina.

⁽³⁾ Microbiology Service, Laboratorio de Alta Complejidad de Misiones. Posadas, Misiones Argentina.

Background: neutropenic enterocolitis (NEC) is an abdominal complication of cancer chemotherapy, affecting mostly patients receiving intensive chemotherapeutic regimens with high potential to induce mucosal damage, such as patients with acute leukemia. Early recognition and treatment are essential for survival.

Objective: to assess the clinical features and outcomes of neutropenic enterocolitis in patients at a university hospital.

Methods: Retrospective study of all adult patients who were hospitalized for acute leukemia with neutropenia $<1000/\text{mm}^3$ who developed NEC between June 2010 and December 2019. Diagnosis was based on the clinical data and imaging tests (abdominal ultrasound and CT scan). Demographics of all patients were collected, as well as the data related with the course and treatment of the underlying hematologic condition and the NEC.

Results: 457 episodes of febrile neutropenia in 93 patients with diagnosis of acute leukemia were enrolled in the study. The diagnosis of NEC was made in 84 episodes (18%) 57 patients; 66% were male. 67% had ANC $<500/\text{mm}^3$. Duration of neutropenia >7 days 86%. Previous hospital stay (last 30 days) 60%. Antibiotics 1 month before onset 34%. Bloodstream infection (BSI) were present in 55.95%; GNB was isolated in 83.63%. *Klebsiella pneumoniae* (45%) and *Escherichia coli* (27%) were the most frequent isolated bacteria. The risk factors associated with mortality included relapse of leukemia (OR, 3.18; 95% CI, 1.1-8.8), refractory hypotension (OR, 27; 95% CI, 8-90.4), respiratory insufficiency (OR, 15.79; 95% CI, 5.14-48.4), renal insufficiency (OR, 5.5; 95% CI, 1.65-18.3) and refractory bleeding (OR, 11.8; 95% CI, 1.74-80). Neutropenia >7 days, platelets $<20.000/\text{mm}^3$, GNB BSI and empiric therapy without antifungal were associated with lower survival rates.

Conclusions: Despite the limitations of our study (single center and retrospective), the prompt diagnosis and management of NEC, that include broad-spectrum antibiotics and antifungal in the empirical treatment, are critical to prevent complications. Other studies should further characterize the symptoms, treatment and outcomes of NEC in prospective cohort and therapeutic studies.