Annals of Translational Medicine & Epidemiology

Open Access

Austin Publishing Group

Clinical Image

Abdominal Pain Associated with Neutropenia

Hyewon Ryu, Hyo Jin Lee*
Department of Internal Medicine, Chungnam National University School of Medicine, Republic of Korea

***Corresponding author:** Hyo Jin Lee, Department of Internal Medicine, Chungnam National University Hospital, 640 Daesa-dong, Jung-gu, Daejeon 35015, Republic of Korea

Received: September 23, 2015; **Accepted:** September 25, 2015; **Published:** September 28, 2015

Keywords

Typhlitis; Neutropenia; Chemotherapy; Abdominal Pain

Clinical Image

A 57-year-old woman with metastatic leiomyosarcoma started palliative chemotherapy with doxorubicin (20 mg/m^2 day 1-3), ifosfamide (2,500 mg/m^2 day 1-3) and dacarbazine (300 mg/m^2 day 1-3) with mesna (2,500 mg/m^2 day 1-4) uroprotection. Ten days after the sixth cycle, the patient presented with fever and abdominal pain with direct and rebound tenderness in right abdomen. Laboratory data revealed a severe hematological toxicity, with grade 4 neutropenia (neutrophil count of 20/mm^3 with a white blood cell count of 240/mm^3) and grade 3 thrombocytopenia (29,000/mm^3). Serum chemistries were unremarkable. Computed tomography of the abdomen and pelvis showed severe edematous wall thickening in terminal ileum, ileocecal valve (arrows), cecum, and proximal ascending colon with luminal collapse and pericolic stranding (Figure 1A–1B).

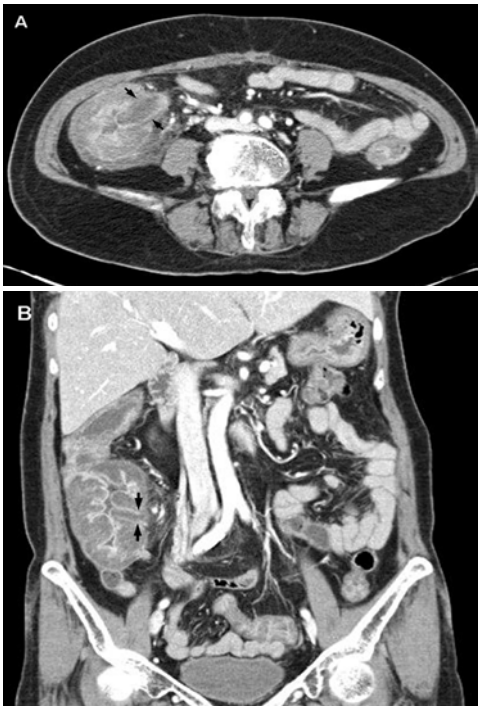

Figure 1: Computed tomography of the abdomen and pelvis demonstrated severe edematous wall thickening of bowel with luminal collapse and pericolic stranding (A, horizontal; B, coronal).

What is the Diagnosis?

1) Appendicitis 2) Typhlitis 3) Bowel ischemia 4) Complicated diverticulitis

Answer and Discussion

Neutropenic enterocolitis, also known as *typhlitis* or *ileocecal syndrome*, is a rare, but important, life-threatening abdominal complication of chemotherapy-induced neutropenia, characterized by an inflammatory process afflicting ileum, cecum, ascending colon, and appendix. It may rapidly evolve from abdominal pain and low-grade fever to bowel perforation, multi-organ failure and sepsis. Edematous bowel wall thickening is a key criterion for neutropenic enterocolitis as shown in our case [1,2]. With the mortality of 50 to 100%, early diagnosis and timely, vigorous therapeutic medical and/or surgical intervention are the cornerstones of successful treatment for these patients [2,3].

In this case, the patient was treated with intravenous fluids, broad-spectrum antibiotics, granulocyte-colony stimulating factor, and maintained on NPO (nothing by mouth). The patient clinical condition improved slowly over 2 weeks and made an uneventful recovery. Considering a growing numbers of cancer patients, clinicians should remain vigilant for serious enterocolitis in patient receiving chemotherapy for rapid identification and prompt therapy.

References

1. Tiseo M, Gelsomino F, Bartolotti M, et al. Typhlitis during second-line chemotherapy with pemetrexed in non-small cell lung cancer (NSCLC): A case report. Lung Cancer. 2009; 65: 251–253.
2. Shvartsbeyn M, Edelman MJ. Pemetrexed-induced typhlitis in non-small cell lung cancer. J Thorac Oncol. 2008; 3: 1188–1190.
3. Cloutier RL. Neutropenic enterocolitis. Hematol Oncol Clin North Am. 2010; 24: 577-584.

Citation: Ryu H, Lee HJ. Abdominal Pain Associated with Neutropenia. Ann Transl Med Epidemiol. 2015; 2(1): 1007.