



# DOCETAXEL INDUCED NEUTROPENIC ENTEROCOLITIS: A CASE REPORT

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## BACKGROUND AND IMPORTANCE

Docetaxel is an antineoplastic drug indicated for the treatment of several types of cancers as non-small-cell lung cancer and breast cancer. Common side effects include hair loss, low blood cell counts, numbness, shortness of breath, vomiting and muscle pains. However, other less common severe adverse events have been reported. Neutropenic enterocolitis, a serious inflammatory condition of the intestine, may occur in up to 1 in 1000 cancer patients taking docetaxel and its incidence is under continuous monitoring by the EMA's Pharmacovigilance Risk Assessment Committee.

## AIM AND OBJECTIVES

To describe and assess a severe case of docetaxel-induced neutropenic enterocolitis after the first cycle of chemotherapy in a patient with breast cancer.

## METHODS

This was a descriptive clinical case. Data were collected from electronic medical records. The Naranjo algorithm was applied to determine causality.

## RESULTS

A 38-year old female with stage IIB-IIIA invasive ductal breast cancer, hormone receptor-positive and HER2-negative, received the following first cycle of neoadjuvant chemotherapy, with filgrastim prophylaxis:

**Docetaxel 75 mg/m<sup>2</sup>**  
**Epirubicin 75 mg/m<sup>2</sup>**  
**Cyclophosphamide 500 mg/m<sup>2</sup>**

Seven days after that, she developed uncontrolled abdominal pain with first-step analgesics, nausea, vomiting, diarrhea and fever. The neutrophil count was 470 cells/ $\mu$ L and the serum creatinine level had increased due to dehydration. A computed tomography scan and echography of the abdomen demonstrated thickening of the walls of the cecum and ascending colon.

According to the previous findings, she was admitted to the Intensive Care Unit (ICU) for neutropenic enterocolitis and acute renal failure. The next day, hemicolectomy had to be performed for signs of intestinal ischemia. Finally, the patient was discharged after multiple infectious complications and 56 days of hospital stay.

The Naranjo Algorithm established as 'probable' (score 6) the relationship between docetaxel and neutropenic enterocolitis. It was notified to the Spanish Pharmacovigilance System.



## CONCLUSION AND RELEVANCE

In this case, docetaxel was probably responsible for neutropenic enterocolitis. In order to know the real incidence of those adverse events listed as rare, it is essential that healthcare professionals officially report suspected adverse reactions.



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