



5-Fluorouracil-Induced Small Bowel Toxicity in Patients with Colorectal Carcinoma

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Background

5-fluorouracil (5-FU) is used in the treatment of a variety of human malignancies either as single agent therapy or in combination with other antitumor agents. 5-FU blocks cell proliferation by inhibiting thymidilate synthetase and incorporating into RNA. Cells with a high replication rate, such as the majority of malignant cells, mucosa of the bowel, oral mucosa, and bone marrow hematopoietic cells, are damaged the most by 5-FU. The toxicity of 5-FU is dose, schedule, and route of administration dependent. Diarrhea is one of the most common side effects of patients receiving 5-FU. This report explores the incidence of small bowel toxicity associated with 5-FU treatment in patients with colorectal cancer.

Methods

Fata and associates reported on 6 patients with colon carcinoma who developed acute small bowel toxicity after treatment with 5-FU and leucovorin. This was a previously unreported phenomenon.

Results

- All 6 patients developed abdominal pain and diarrhea after various doses of 5-FU and leucovorin.
- At colonoscopy, one patient had erosions and superficial ulcerations in the ileum.
- Two patients developed perforation of the small bowel and underwent laparotomy.

Small bowel damage of the other 3 patients was documented by CT scans.

Discussion

The exact mechanisms of 5-FU induced small bowel damage remains unknown. 5-FU induced vasospasm and the resultant decreased mucosal blood flow were postulated as one of the explanations. This report emphasizes the important point that uncommon complications do occur with drug therapy. Recognition of the complications and appropriate management is critical in minimizing the potential morbidity.

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