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# Perforated Toxic Megacolon: Fatal Presentation of Ulcerative Colitis

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**Abstract:** *The incidence of toxic megacolon is nearly 1-5% in inflammatory bowel disease and is more common in pancolitis form of ulcerative colitis than segmental colitis form. Toxic megacolon is potentially a fatal complication of ulcerative colitis. Systematic toxicity and colonic dilatation are common features of this disorder. Patients with ulcerative colitis are at risk of this complication in the early phase of their disease and it rarely happens as an initial presentation. In the last decade, there have been few reports of this rare complication in the literature. We reported a fatal presentation of toxic megacolon in a young lady with new onset of severe pancolitis of ulcerative colitis. A 28-year-old woman with a history of uncontrolled ulcerative colitis for 1 months presented with toxic megacolon features in the emergency room of our hospital. She was admitted in the intensive care unit and started supportive cares including intravenous fluid resuscitation, electrolyte replacement, intravenous broad spectrum antibiotics and corticosteroid for her symptoms. But the patient's clinical condition deteriorated after 4 hours and died due to septic shock over next hours of supportive cares before emergency surgery. Urgent subtotal colectomy and ileostomy is used as a lifesaving procedure for these patients if symptoms didn't improve with supportive cares after 48–72 h or the patient's condition worsens or a bowel perforation was observed. Clinician faces with an increased morbidity and mortality if surgery is delayed. The mortality rate of toxic megacolon has decreased from high percentage to 2% by new therapeutic strategies in ulcerative colitis patients.*

**Keywords:** *Ulcerative colitis, Intestinal perforation, Megacolon*

## 1. INTRODUCTION

The incidence of toxic megacolon is nearly 1-5% in inflammatory bowel disease and is more common in pancolitis form of ulcerative colitis than segmental colitis form or crohn's disease. Patients with ulcerative colitis are at risk of this complication in the early phase of their disease and it rarely happens as an initial presentation [1]. In the last decade, there have been few reports of this rare complication in the literature. We reported a fatal presentation of toxic megacolon in a young lady with new onset of severe pancolitis of ulcerative colitis.

## 2. CASE REPORT

A 28-year-old woman with a history of uncontrolled ulcerative colitis for 1 months presented with severe weakness, bloody diarrhea and disorientation to the emergency department of our hospital. In physical examination revealed temperature: 39°C, systolic blood pressure: 60mmHg and heart rate: 146 beats per minute. Her abdomen was distended and tender with hypoactive bowel sounds. Laboratory data reported a marked leukocytosis ($24\times10^9$/L) with neutrophilia, C-reactive protein: 25 mg/dl, erythrocyte sedimentation rate: 120 mm/h, hypoalbuminemia (2.5 mg/dL), anemia (Hb: 6 g/dL), sodium: 122 mmol/L and potassium: 3.1 mmol/L. See her abdominal radiography in the emergency department in Figure 1 (Panel A). She was admitted in the intensive care unit and started the initial resuscitation with fluid replacement, blood transfusion, intravenous broad spectrum antibiotics and corticosteroid. But the patient's clinical condition deteriorated after 4 hours and you can see next emergency abdominal radiography (left lateral decubitus) in the intensive care unit in Figure 1 (Panel B). Her general condition was worsened after it. Her temperature rose to over 40.5° C, and she had considerable and pronounced abdominal distention and vomiting. She died due to septic shock following perforated toxic megacolon over the next 2 hours of supportive cares and before emergency surgery.

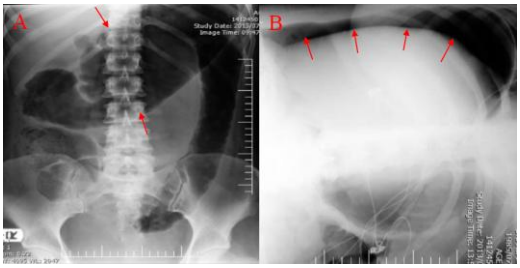


**Figure 1:** ***A.*** *An erect Abdominal X-ray revealed dilated transverse colon more than 10 cm (Panel A, red arrows).* ***B.*** *Abdomeninal X-ray (left lateral decubitus) revealed free gas in abdomen cavity (Panel B, red arrows).*

 

## 3. DISCUSSION

Toxic mega colon definition is total or segmental non-obstructive dilatation (>5.5 cm) of the colon associated with systemic toxicity (fever, tachycardia, abdominal pain, confusion, anemia and leukocytosis) [1, 2, 3]. Plain radiography of abdomen is necessary to confirm the diagnosis and also for careful monitoring of patients with toxic megacolon. Right colon and transverse colon are more involved than left colon and rectosigmoid. The initial treatment is supportive and is successful in about half of the cases [1].Free colon perforation may happen in toxic mega colon. Close clinical monitoring and early surgery intervention should be considered for a good recovery [4]. If patient symptoms didn't improve with supportive cares after 48–72 h or the patient's condition worsens, or a bowel perforation was observed, the surgical option will be mandatory [3]. Perforation, hemorrhage and peritonitis increase the mortality rate in patients with toxic megacolon. Intraperitoneal perforation of the colon is the most fatal complication of ulcerative colitis (50-80%) [4, 5]. Urgent subtotal colectomy and ileostomy is used as a lifesaving procedure for patients with toxic megacolon. Clinician faces with an increased morbidity and mortality if surgery is delayed [6]. The mortality rate of toxic megacolon has decreased from high percentage to 2% by new therapeutic strategies in ulcerative colitis patients. [1]

## 4. CONCLUSION

The high possibility of colon perforation should be considered in patient with toxic megacolon feature of ulcerative colitis. Close clinical monitoring and provide an early surgical intervention are essential for a good recovery.

### Conflict of interests

No conflicts of interests to disclose.

### Sources of funding

None.

### Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images.

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