

## Toxic megacolon from sexually transmitted *Shigella sonnei* infection

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Accepted: 19 April 2011 / Published online: 3 May 2011  
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Dear Editor:

We wish to report a case of sexually transmitted *Shigella sonnei*-induced toxic megacolon that required subtotal colectomy. To our knowledge, such a case has not previously been published.

*Shigella* species are facultative, anaerobic, non-motile, Gram-negative bacilli and are conventionally divided into four serogroups: *Shigella dysenteriae*, *Shigella flexneri*, *Shigella boydii* and *Shigella sonnei* of which *S. dysenteriae* is best known for causing bacillary dysentery. Although rare, toxic megacolon is a recognised complication of shigellosis. Shigellosis, including that caused by species *S. sonnei*, is well documented as being a sexually transmitted infection in homosexual men. The known risk factors in the homosexual *Shigella* transmission are direct oral–anal contact, HIV infection and a history of unprotected sex. In cases of toxic megacolon secondary to shigellosis, surgical intervention is rarely required.

We recently cared for a 44-year-old Caucasian homosexual man who was admitted with a week history of increasingly non-bloody diarrhoea up to 20 times per day, abdominal pain and abdominal distension. Apart from a well-controlled mild asthma, he did not have any significant medical history and was HIV negative. Twenty-four hours prior to his symptoms, he had an oral–anal sexual encounter with another man. There was no history of foreign travel and no other contacts were affected. On examination, he was afebrile with a pulse rate of 130/min and blood pressure of 122/92 mmHg. His abdomen was distended with tenderness over all

quadrants, tinkling bowel sounds and an empty rectum on digital rectal examination. The blood investigations revealed WBC of  $19.3 \times 10^9/L$ , CRP of 517 mg/L, INR of 1.5, urea of 15.2 mmol/L and creatinine of 181  $\mu\text{mol/L}$ . The plain abdominal X-ray showed grossly dilated large bowel loops and a contrast enhanced abdominal CT confirmed global dilatation of the colon up to 11.5 cm in diameter with impending caecal perforation.

He underwent urgent flexible sigmoidoscopy that showed fulminant colitis and therefore was empirically started on intravenous metronidazole and ciprofloxacin while awaiting the stool cultures and biopsy results. On second day of his admission, he underwent an emergency subtotal colectomy with end ileostomy for this colitis. Intraoperatively, the toxic megacolon was surrounded by marked inflammatory tissue and fat wrapping including small bowel loops but there was no perforation. Histology confirmed a massively dilated colon with transmural mixed inflammatory cell infiltrate and epithelial ulceration in keeping with an acute severe colitis suggestive of an infective aetiology. The stool cultures confirmed *S. sonnei* (Phage type 6), while *Clostridium difficile* toxin, *Escherichia coli* 0157, *Salmonella*, *Campylobacter*, *Cryptosporidium* and *Cytomegalovirus* were negative. He recovered well following his operation without any postoperative complications.

Although Shigellosis is a well-known medical condition, toxic megacolon is a rare complication, and toxic megacolon requiring surgical intervention is extremely rare. Through this case, we highlight the significance of a thorough sexual history in the patients presenting with clinical symptoms and signs of toxic megacolon. This case also shows the ability of the relatively non-virulent *sonnei* species to cause toxic megacolon and, unique to this case, to do so via sexually transmitted means.

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