The management of a patient presented with Fournier’s gangrene associated with undiagnosed ulcerative colitis: A case report

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Abstract

Introduction: Fournier’s gangrene is a rare polymicrobial necrotizing fasciitis of the perineal and perianal regions, found to be associated with colorectal diseases and urogenital operations. We present here a difficult management of a patient presented with Fournier’s gangrene associated with undiagnosed ulcerative colitis.

Case presentation: A 25 year-old man presented with perineal pain and was diagnosed with Fournier’s gangrene. The patient was hospitalized and treated with wide-spectrum antibiotics and surgical debridement of the necrotic tissue. During follow up the patient developed a toxic megacolon which was successfully treated by colectomy and end-ileostomy. The pathological findings of the surgical specimen was resulted as a diffuse active colitis supporting ulcerative colitis.

Conclusion: Fournier’s gangrene is an aggressive infection with high mortality rates which requires a multidisciplinary approach.
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The technique was chosen as the wound dressing (Figure 2). The patient was started on broad-spectrum antibiotics with vancomycin and meropenem. The routine follow-up were done with CBC (complete blood count), liver and kidney function tests. Although leukocyte levels decreased for first three days, then elevated to 19.500 (normal limit: 4200-10.600). Total and direct billuribine levels were elevated up to 4.9 and 2.8 mg/dl. AST and ALT levels were 226 and 72 U/L, ALP (alkaline phosphatase) and GGT (gamma glutamine transpharase) levels were 666 and 441 U/L. CRP was measured 147 mg/L.

On postoperative 8th day, the patient started having abdominal pain, distention and fever with septic appearance. Another CT scan of the abdomen was performed revealing distention of transverse segment of the colon up to 8-9 cm with extensive fluid surrounding the colonic segments. With the presumptive diagnosis of toxic megacolon, explorative laparatomy was performed (Image 5-6). Operative findings were extensive distention of the ascending, transverse and the descending segments of the colon. A perforated area was located in the transverse segment of the colon. The sigmoid colon and the rectum were intact. We decided to proceed with subtotal colectomy and end-ileostomy.

The patient was taken to the intensive care unite and the same antibiotic regimen with vancomycin and meropenem were continued for 13 days. CRP and procalcitonin levels were followed regularly. Cultures of the necrotic tissue samples were resulted as Acinetobacter baumanii and Pseudomanas aeroginosa. The antibiotic regimen was changed to linezolid, colistine and tazocin. The regimen was continued for 24 days.

The patients' debrided wound was continued to be dressed with VAC for 34 days. The VAC dresses were changed every 48 to 72 hours. During follow-up, septic appearance of the patient regressed. On postoperative 36th day, the wound was partially closed by secondary suturing and the remaining part was left for spontaneous epithelialisation.

The pathological findings of the surgical specimen were mucosal ischemia and necrosis of the resected segments of the colon. There were multiple mucosal ulcerated lesions, cryptic distortions, and significant lymphoid infiltration with aggregate formation consistent with inflammatory bowel disease. All of the dissected lymph nodes were found to be reactive (Figure 4).

Also the pathological findings of the colonoscopic biopsies were found to be similar, with increasing cryptitis formation and lymphoid infiltration in mucosa of the distal segments of the colon and the rectum. The granuloma formation was not detected. All these results suggested diffuse active colitis supporting ulcerative colitis.

The patient was started on salofalk and discharged on postoperative 42nd day.

Discussion

Fournier’s gangrene is an aggressive necrotizing fasciitis of perianal, genitourinary and perianal regions. The source and the entrance of the infective microorganisms are commonly found to be...
anorectal lesions and cutaneous trauma by foreign bodies. The main predisposing factors are considered to be immunosuppressive diseases, Diabetes Mellitus and chronic alcoholism.

The case report we present here, distinguishes itself with the patients’ younger age and the underlying undiagnosed ulcerative colitis which can easily mislead. Although the disease mostly affect elder patients, with recent studies the age range was found to be between 22 to 88 years old [10]. Various colorectal diseases and procedures have been associated with Fournier’s gangrene; such as iatrogenic colon perforation [11], sigmoid colon perforation via dislocated pancreatic stent [12], perforation of a malignant tumor located in rectum [13].

The possible triggering factors for our patient are underlying inflammatory bowel disease and performed colonoscopy. So, a thorough evaluation for underlying disease including any previous symptoms such as rectal bleeding, loose stools and weight loss, and previous procedures should be overtaken.

The main standard treatment is surgical debridement of the necrotic tissue and wide-spectrum antibiotics, regardless of associated disease. However, in patients with inflammatory bowel disease, anti-inflammatory regimens such as mesalamine, salofalk and 6-MP can also be effective in alleviating the disease. Hyperbaric oxygen therapy, various skin grafts, and vacuum-assisted closure techniques are also found to be effective in reducing the hospital stay and patients’ discomfort [14,15].

Conclusion

We present here an exceptional case management of a patient presented with a Fournier’s gangrene associated with undiagnosed Ulcerative colitis. Fournier’s gangrene is an aggressive infection with high mortality rates despite of new treatment modalities. A multidisciplinary approach is crucial for this devastating disease.

References