Intra-Abdominal Abscess in Crohn's Disease : A Case Report

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Abstract

Inflammatory bowel disease is uncommon in Thailand. The authors report a case of Crohn's disease in a 47-year-old Thai female. The patient presented with a three-week history suggestive of an appendiceal abscess requiring an operation. The intra-operative findings of a lesion involving the terminal ileum and cecum, necessitated a right hemicolectomy to rule out reliably the presence of malignancy. Pathologic examination of the specimen suggested Crohn's disease.

Key word : Intra-Abdominal Abscess, Crohn's Disease

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Crohn's disease, described by Crohn et al in 1932 as regional ileitis, is characteristically a chronic transmural inflammation that can affect any part of the gastrointestinal tract from the mouth to the anus[1]. The cause remains a matter for continuing debate and the natural course is unpredictable. Patients with Crohn's disease may present with a range of different clinical features, depending on the severity, location of the bowel involvement and extraintestinal manifestations. The diagnosis depends upon the presence of at least two of the following four criteria: (1) diarrhea of more than three months' duration; (2) radiographic examination showing the small bowel to have typical stenosis and proximal dilation and/or the large bowel with a cobblestone appearance; (3) histologic findings documenting transmural

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lymphocytic infiltration or epithelial granuloma with Langhans giant cell ; and (4) the presence of a fistula or abscess in the involved region[2].

The incidence is estimated to be 5 to 7 per 100,000 population in the United States and Europe but is much less frequent in Asia[3]. Because of the rarity of the disease in Thailand, the authors report a case of Crohn's disease presenting with an intra-abdominal abscess.

CASE REPORT

A 47-year-old Thai woman presented with one day of worsening abdominal pain after discharge from another hospital where she was diagnosed as having an appendiceal abscess, three weeks previously. At the former hospital, ultrasonography of the abdomen showed a thickening of the small bowel wall and increased density of fat with a matted loop of bowel in the right lower quadrant. The patient was treated with intravenous aminoglycosides and metronidazole, which produced symptomatic improvement and she was discharged 7 days later. She reported that the pain had actually begun 3 months previously and was usually worse after a meal. She denied having a fever, melena or diarrhea; she did, however, volunteer 6-kg of weight loss. Following discharge the pain persisted and in the 2 days prior to admission the pain had become worse and she sought further medical attention. Past history and review of symptoms were, otherwise, unremarkable. There was no past or family history of gastrointestinal disease.

On physical examination, the patient's temperature was 37°C and other vital signs were normal. Chest and cardiac examinations were normal. Physical examination of the abdomen was characterized by guarding, marked tenderness to palpation, positive rebound tenderness and an ill-defined mass in the right lower abdomen. The remainder of the physical examination was normal. The laboratory studies showed a hemoglobin of 9.9 g/dl, hematocrit of 30 per cent and leukocyte was 8,200 cells/L with a differentiated count of 72 per cent polymorphonuclear leukocytes, 22 per cent lymphocytes, 2 per cent monocyte and 4 per cent eosinophils.

The medical evaluation at this time suggested a diagnosis of an appendiceal abscess and operation was recommended. A transverse incision over McBurney's point was made. The appendix and cecum were mildly inflamed and appeared to be part of an inflammatory mass involving the terminal ileum and mesenteric side of the cecum. A midline incision was done to allow complete assessment because intra-operative diagnosis was not tenuous and pathology could not be ascertained through the initial one. Systematic peritoneal cavity exploration revealed no demonstrable involvement beyond the ileocolic region. The markedly inflamed terminal ileum was matted to the cecum forming a firm ileocolonic mass with multiple enlarged mesenteric lymph nodes. A provisional diagnosis of cancer was made necessitating a right hemicolectomy and primary ileocolonic anastomosis. Frank purulent fluid (5 ml) between the ileocolic loop in the resected specimen suggested an abscess formation.

The post-operative recovery was uneventful. The patient has remained well without recurrence of symptoms at the follow-up 3-month visit.

DISCUSSION

The patient's history and physical examination suggested the clinical diagnosis of an appendiceal abscess. However, the findings at laparotomy raised the possibility of alternative pathologies, among them, malignancy, inflammatory and infectious processes. To achieve adequate treatment, an operation for malignant disease was performed. The diagnose of Crohn's disease in this case was made

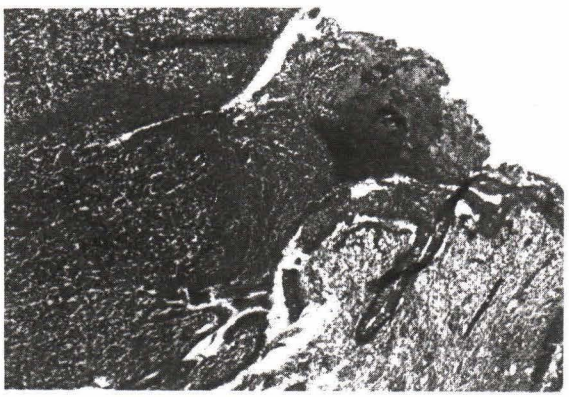

Fig. 1. Photomicrograph of the mucosal ulceration with exudative material coverage at terminal ileum.

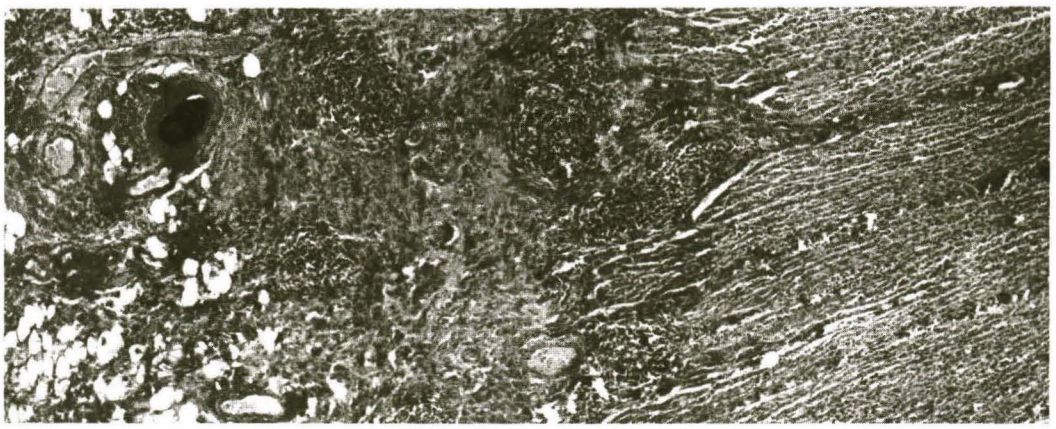

Fig. 2. The transmural chronic inflammation with lymphoid follicles involving both terminal ileum and cecum suggests Crohn's disease.

on the presence of an abscess in the region of the terminal ileum and the transmural lymphocytic infiltration on histologic evaluation (as shown in Fig. 1 and 2).

The highest incidence of Crohn's disease is in North America and Northern Europe[3] while in Thailand it is believed to be rare[4]. The pathogenesis is multifactorial and not completely understood. Immunologic studies have documented inappropriate responses of T-helper 1 cells in the lamina propia to intestinal microflora[5,6]. Some studies, however, have suggested that an infectious etiology may contribute to the pathogenesis[7]. Genetic factors also have been implicated because there is evidence in the literature to demonstrate abnormalities on chromosome 16 and 12[8,9]. The only significant risk factor is having a first degree relative with Crohn's disease[10]. The current knowledge suggests the interaction of these various possible mechanisms[7,8].

Intra-abdominal abscesses occur in approximately 20 per cent of patients with Crohn's disease, [11,12] and are sited in the right lower quadrant of the abdomen in over 80 per cent of cases[11]. Because of the unpredictable course and cumulative recurrence rates of the disease, surgical intervention should be reserved until conservative treatments fails[11]. The failure to recognize Crohn's disease resulted in this patient being treated by laparotomy. Approximately 85 per cent of patients undergoing surgery present with terminal ileitis and ileocolitis while the most frequent indication for surgery is intestinal obstruction[3,13]. Patients with ileocolitis appear to have a greater risk of recurrence than those with isolated ileal disease[14]. At present, neither medical therapy, such as sulfasalazine, corticosteroids, nor surgical treatment have been shown to be of benefit in preventing long-term recurrence [15]. Therefore, maintenance therapy cannot be recommended for the patient at this time.

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ภาวะฝีในช่องท้องจากโรคโครน : รายงานผู้ป่วย 1 ราย

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Inflammatory bowel disease เป็นโรคที่พบน้อยมากในประเทศไทย ผู้เขียนรายงานผู้ป่วย Crohn's disease ที่มาพบแพทย์ด้วยอาการปวดท้องและได้รับการวินิจฉัยว่าเป็นฝีในช่องท้องจากไส้ติ่งอักเสบมา 3 สัปดาห์ ต่อมาได้รับการผ่าตัด right hemicolectomy เนื่องจากลักษณะพยาธิสภาพที่พบขณะผ่าตัดมีลักษณะที่อาจเกิดมีสาเหตุจากมะเร็งของลำไส้ใหญ่ส่วนต้น ผลการตรวจทางพยาธิพบลักษณะเข้าได้กับโรค Crohn's disease ของลำไส้เล็ก

คำสำคัญ : ฝีในช่องท้อง, โรคโครน

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