Clinical Analysis of Perforated Intestinal Behcet Disease

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Clinical pattern of perforated intestinal Behcet disease was analyzed in the five patients who underwent surgery in terms of preoperative symptoms, the condition of perforation, the extent of resection and recurrence.

In the experienced patients, recurrences were included in four of the five patients in spite of treatment. Perforation was based on deep multiple ulcers, characteristic of the punched-out type.

It is emphasized that intestinal Behcet disease is more likely to occur as a catastrophic event of perforation which requires an urgent operation, and more extensive resection is mandatory for prevention of recurrence.

Introduction

It is well known that Behcet disease involves the whole digestive canals from the esophagus to the rectum by ulcerative lesions. It is referred to as gastrointestinal Behcet which is characteristic of accompanying catastrophic complications of perforation and bleeding. The so-called Behcet syndrome is categorized into entero-, angio- and neuro-Behcet diseases.

We experienced seven patients with perforation by Behcet disease. Of the seven patients, five required emergency operation. In this study, significance of urgent operation for perforation by Behcet disease was clinically evaluated in terms of their prognoses.

Table 1 Patients who underwent emergency operation with perforated intestinal Behcet disease

<table>
<thead>
<tr>
<th>Age</th>
<th>Sex</th>
<th>Abjective ulcer</th>
<th>Genital ulcer</th>
<th>Skin lesion</th>
<th>Eye syndrome</th>
<th>Digestive syndrome</th>
<th>Reoperation</th>
<th>Preoperative diagnosis</th>
<th>Time interval and treatment</th>
<th>The first op resected length</th>
<th>Operative finding (number of perforated sites)</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>M</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>abdominal pain</td>
<td>non</td>
<td>perforation</td>
<td>(-)</td>
<td>Ileocecum resection (80cm)</td>
<td>multiple-ulcers (12)</td>
</tr>
<tr>
<td>38</td>
<td>F</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>lower aBD pain</td>
<td>(+) once</td>
<td>perforation</td>
<td>1 y 10m steroid</td>
<td>Ileocecum resection (10cm)</td>
<td>multiples (9)</td>
</tr>
<tr>
<td>40</td>
<td>M</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>lower aBD pain</td>
<td>(+) three times</td>
<td>Strangulation</td>
<td>steroid Imuran</td>
<td>7-hemicolectomy (14cm)</td>
<td>turbid ascites (unknown)</td>
</tr>
<tr>
<td>55</td>
<td>M</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>lower aBD pain</td>
<td>(+) twice</td>
<td>Ileocecm resection</td>
<td>(-)</td>
<td>7-hemicolectomy (22cm)</td>
<td>fistula between skin and anastomosis multiple ulcer (5)</td>
</tr>
<tr>
<td>55</td>
<td>M</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>lower aBD pain</td>
<td>(+) once</td>
<td>Ileus</td>
<td>8 y 8m</td>
<td>Ileoceum resection (30cm)</td>
<td>multiple (5) with blood at anastomosis strangulation ileus</td>
</tr>
</tbody>
</table>

Patients

Table 1 shows the five patients with perforation by Behcet disease. The main syndrome of ulcer in external genitals was seen in all five patients. On the other hand, four out of five presented with aphthous ulcer, two with eye syndrome and one with skin sign, respectively. All complained of right lower abdominal pain. Four of the five gave a history of the past operation for Behcet disease, twice in one and three times in another.

Urgent operations were indicated for clinical signs of peritonitis in four and bowel obstruction in one. The operative procedures were ileocecal resection, ranging from 10 cm to 80 cm long in three and right hemicolectomy, ranging 14 to 23 cm long in two. The resected specimens showed multiple ulcers in four with two and five perforated sites (Fig1, 2) and in one with undetermined perforated site covered with pus mass accompanying turbid ascites. The postoperative courses were uneventful and all returned to normal social life.

Discussion

A disease revealing four overt manifestations of buccal aphthous ulceration, eye lesion, skin lesion and genital ulceration is termed as Behcet disease and accessory
syndrome may appear neuro-, vascular-, digestive and stricular-syndromes. It is reported by Japanese Welfare investigation group^2^ that intestinal Behcet disease corresponds to 542 out of a total of 2520 of Behcet disease cases (21.5%). It is characteristic of intestinal ulcer with the site of predilection in ileocecal region as seen in 74.2%^3^ and 80.2%^4^ . Furthermore, one more primary characteristics of Behcet disease is the high risk of perforation as reported by Nakano^5^ . According to Japanese literature, the ileal type is more likely to perforate than the ileocolic type.

It is well known that the intestinal Behcet disease is manifested by pain in ileocolic region as a clinical sign^6^ . Surgeons should pay attention to the necessity of urgent operation for Behcet disease suspecting acute appendicitis and acute peritonitis. In addition, the preoperative steroid therapy is a little more cumbersome to postoperatively.

Furthermore, a great concern about the treatment of intestinal Behcet disease is recurrence, as frequent as in 30.2%^7^ to 33.3% of cases^8^ . It is dubious as to whether recurrence includes remaining multiple lesions as well as a deteriorated stage at the first operation^9^ or stimulation by suture material^10^ enough to cause recurrence. Some reports emphasized that environmental contamination, viral infection and genetic background play an important role in the genesis of Behcet disease. The etiology of ulceration is explained by changes in the vascular system due to vascular obstruction and phlebitis in association with autoimmune disease.

Needless to say, the lesions should be identified by endoscopic examination during performing operation. A two stage operation is of great value to assess the lesions accurately after eliminating inflammatory changes. There are certain problems with the extent of involving gut to be resected. Baba^11^ warned even a 50 cm resection apart from the lesion gave rise to 17.1% of recurrence.

Reference

2) Shiratori T, Ina i N: Study on 60 cases of operated intestinal Behcet disease and some consideration in literature. Surg Therap. 38: 129-139, 1978