Conservatively Treated Diverticular Abscess is Associated with High Risk of Recurrence and Disease Complications

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Disclosures

- No financial disclosures
Introduction

- Outcomes after resolution of diverticular abscess are poorly defined and remain debated.

- ASCRS practice guidelines recommend: “consideration of elective resection” after an episode of diverticular abscess (due to high recurrence rate).

- Unclear how belief that the first episode is the most severe relates to this.
Objective

- To determine the natural course and outcomes of patients with initial non-operative treatment of diverticular abscess
Methods

- Retrospective review of all patients with diverticular abscess confirmed by CT from 2004-2014 at an urban county institution

- Abscess severity categorized according to the modified Hinchey classification

Deveraj B. Dis Colon Rectum 2016
Table 1: Hinchey classification and modified Hinchey classification of acute diverticulitis

<table>
<thead>
<tr>
<th>Hinchey classification</th>
<th>Modified Hinchey classification</th>
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<tbody>
<tr>
<td>I</td>
<td>I A: Confined pericolic inflammation, phlegmon</td>
</tr>
<tr>
<td>I</td>
<td>I B: Confined pericolic abscess</td>
</tr>
<tr>
<td>II</td>
<td>II: Pelvic, distant intra-abdominal, or retroperitoneal abscess</td>
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<tr>
<td>III</td>
<td>III: Generalized purulent peritonitis: No open communication with bowel lumen</td>
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<tr>
<td>IV</td>
<td>IV: Fecal peritonitis: Free perforation, open communication with bowel lumen</td>
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<tr>
<td></td>
<td>FIST&lt;sup&gt;a&lt;/sup&gt;: Colo-vesical/ -vaginal/ -enteric/ -cutaneous fistula formation</td>
</tr>
<tr>
<td></td>
<td>OBST&lt;sup&gt;b&lt;/sup&gt;: Stricture with large and/or small bowel obstruction</td>
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<sup>a</sup> FIST = Fistula formation.  <sup>b</sup> OBST = Obstruction.
Methods: ENDPOINTS

- Determine:
  - overall recurrence
  - disease complication rates
  - need for operation after initial successful non-surgical management

- Analysis of the whole cohort +
- Subgroup of patients with percutaneous drainage
Results

- Total of 210 patients with diverticular abscess
- 185 patients successfully managed medically at index admission
- Recurrence rate after initial non operative management of was 60.5% (112 pts)
Selected references:

All cases of acute diverticulitis (n = 1194)

CT documented abscess (n = 210)

Urgent operation (n = 25)

Nonoperative management (n = 185)

Recurrent diverticulitis (n = 112)

Urgent operation (n = 29)

Subsequent operation (n = 37)

Chronic complication (obstruction, fistula, smoldering) (n = 31)

Ideology (n = 6)

No documented recurrence (n = 75)

Operation due to ideology (n = 1)

60%
Results

- 42% experienced multiple recurrences
- 45.6% of the recurrences were more severe than the index episode
- 63% of the recurrences were complicated by abscess, fistula, stricture, or peritonitis
- 51% of patients (65/112) with recurrent disease eventually underwent colectomy
Table 3. Characteristics of recurrences of diverticulitis (N = 112 patients)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>At Time of Recurrence</th>
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<tbody>
<tr>
<td>Time to recurrence, months (range)</td>
<td>5.3 (0.8-20)</td>
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<tr>
<td>Follow-up, months (range)</td>
<td>13 (3-38)</td>
</tr>
<tr>
<td>Multiple recurrences, n (%)</td>
<td>47 (42%)</td>
</tr>
<tr>
<td>Increase in Modified Hinchey Class, n (%)</td>
<td>51 (45.6%)</td>
</tr>
<tr>
<td>Characterization of recurrence:</td>
<td></td>
</tr>
<tr>
<td>Complicated(^a), n (%)</td>
<td>71 (63.4%)</td>
</tr>
<tr>
<td>Uncomplicated(^b), n (%)</td>
<td>41 (36.6%)</td>
</tr>
</tbody>
</table>

\(^a\) Complicated: Recurrent abscess, fistula, obstruction, peritonitis (modified Hinchey IB or higher)
\(^b\) Uncomplicated: Modified Hinchey class IA.
Results – CT Guided Drainage

- 65 patients underwent CT guided drainage
- 61/65 (94%) patients successfully avoided surgery at index admission
- **Recurrence** after successful CT guided drainage was **73.8%**
Selected references:

Total CGD (n = 65)

Immediate failure requiring urgent operation (n = 4 [6%])

Initial success (n = 61 [94%])

Recurrence (n = 45 [74%])

No recurrence (n = 16 [26%])

Complicated (n = 32 [71%])

Uncomplicated (n = 13 [29%])

25 (55%) underwent surgery
Conclusions

- Diverticular abscess is associated with: high risk of recurrences and disease complications

- Recurrences are often more severe than the index presentation (goes against dogma)

- CT guided drainage should only be considered as a bridge to surgery

- Our data suggests: After initial successful conservative management, patients should be offered interval elective colectomy
Thank You

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