

RECURRENT CROHN'S DISEASE

- Surgical intervention rates for CD – 78% at 20 yrs and 90% at 30 yrs of symptoms.
- Recurrence of disease is frequent, sometimes even after a very short post-operative period.
- Recurrence means the appearance of objective signs (defined clinical, radiologically, endoscopically or pathologically) of Crohn's disease in the bowel of a patient who has previously had a resection of all macroscopically diseased tissue.
- Symptomatic recurrence: 3mo – 33%; 6mo – 20%-37%; 1yr – 34%-86%.
- Endoscopic recurrence: 3mo – 60%-73%, 6mo – 84%, 1yr – 73-100%.
- Endoscopy is the most reliable method to diagnose a recurrence in Crohn's disease. The lower frequency of symptomatic recurrences implies that endoscopic recurrence does not necessarily lead to symptoms.
- New Crohn's disease lesions almost always occur at the proximal side of the ileocolonic anastomosis or just at the anastomosis. These lesions more or less have the same configuration as in non-operated digestive tract of patients with Crohn's disease.
- Aphthous ulcers, larger ulcers, cobblestones, and stenosis can all be detected in recurrent Crohn's disease.
- Surgery is the final way to detect a recurrent Crohn's disease.

Etiology of recurrent Crohn's disease

- The clinical pattern of Crohn's disease of the post-operative distal ileum remains the same as before surgery.
- The trigger of early recurrent lesions is unknown.
- Smedh et al. have demonstrated that recurrence of ileal inflammation was linked to an increase in mucosa phospholipase A2 activity which precedes endoscopically detected lesions.
- It is questioned whether the recurrent lesions really are new lesions and not a flare-up of pre-existing (microscopic) Crohn's disease left after resection (EM findings show early changes in histologically unaffected margins)
- Most likely the cause of recurrence is luminal factor
- Diversion of fecal stream proximal to ileocolonic anastomosis delays/prevents recurrence, ileostomy reversal will cause fast recurrence in same patients

- Heimann et al. have shown that ileostomy seems to be associated with significantly lower recurrence rate.

Risk factors for recurrent Crohn's disease

Clinical factors

- Aggressive fistulizing Crohn's disease has the tendency to recur earlier than a more indolent type.
- Onset of disease at a young age possibly increases the risk of recurrent disease
- In patients with ileitis and duration of disease of more than 10 years the relative risk of recurrence is lower. (probably represent indolent course of the disease)
- When a resection in children was done within one year of onset of symptoms, recurrences started later (30% in eight years) compared to those who had a longer pre-operative time of onset of disease (50% in four years)
- Location – ileocolic>ileal>colonic
- Early endoscopically detected recurrence does not necessarily predict recurrence detectable surgically. Only those patients who were treated with mesalazine had fewer surgical recurrence compared with untreated patients ($p<0.05$)
- Rutgeerts et al. have demonstrated that more severe lesions at endoscopy within one year after resection resulted in more symptomatic or radiologic recurrences.

Smoking

- Smoking influences long-term course of disease – more hospitalizations, relapses, higher clinical activity, fistulas/abscesses
- The risk of endoscopic and surgical recurrence was doubled in smokers and the risk of clinical recurrence is raised by 50%. Moreover, the duration of smoking and the number of cigarettes smoked significantly increases the risk of a recurrence.

Surgical factors

- Type of anastomosis doesn't influence on recurrence rates
- Crohn's disease is believed to be panenteric, as its typical changes can be found throughout the whole gastrointestinal tract. For this reason it is impossible to achieve a surgical cure.
- Extended resections beyond macroscopic margins are unnecessary.

Medical prophylaxis of recurrence of Crohn's disease

- 5-ASA compounds seem to be effective in postoperative recurrence prevention of CD. Numerous studies showed reduction in endoscopic (modest), clinical recurrence.

- Corticosteroids have no role in recurrence prophylaxis
- Metronidazole may be effective in recurrence prophylaxis but effect is time limited and side effects are significant.
- Prophylaxis with 6MP and Azathioprine is spared for patients with more severe disease and multiple resections

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