Early Colonoscopy in Patients with Acute Diverticulitis

Simon Bar-Meir, M.D.

Professor of Medicine
Germanis Kaufman Chair of Gastroenterology
Director, Dept. of Gastroenterology
Chaim Sheba Medical Center, Tel-Hashomer

and Sackler School of Medicine, Tel Aviv University
Acute Diverticulitis

- Clinical presentation
- CT scan

No pericolic air

Pericolic air
Acute Diverticulitis

Differentiating from colonic carcinoma
Diverticulitis vs. Carcinoma on CT

- Diverticulitis:
  - colonic wall thickening
  - pericolic fat infiltration
  - absence of pericolic lymph nodes

- Cancer:
  - colonic wall thickening
  - adjacent lymph nodes
  - intra-luminal mass

- Overlap exists
Colonoscopy in Acute Diverticulitis

- Colonoscopy is recommended
- But is postponed for 6 weeks
- Diverticulitis affects mostly the elderly
- Elderly pts may be lost for follow-up
- Pts re-admitted because obstruction
- At surgery: colonic carcinoma
Colonoscopy in Acute Diverticulitis
Colonoscopy in Diverticular Disease

Colonoscopy in Diverticular Disease

- 42 y/o female with rectal bleeding
- Colonoscopy: multiple diverticuli
- At splenic flexure “the movable tip mechanism broke down”
- Abdominal distention and vomiting
- Admitted next day and died
- PM: 0.5 cm perforated diverticulum

Colonoscopy in acute diverticulitis is not advocated
Colonoscopy in Acute Diverticulitis

- Diverticulitis is a sealed perforation
- Occasionally evolves into free perforation
- Colonoscopy is postponed for 6 weeks
- Avoid the conversion into a free perforation
- This policy is not evidence-based
Colonoscopy in Acute Diverticulitis

- Experience?
- Risk for perforation?
- Any benefit?
Aim

To evaluate the feasibility and safety of early colonoscopy in patients with acute diverticulitis.
Colonoscopy in acute diverticulitis
- 3 steps-

Colonoscopy in all patients with acute diverticulitis:

a) but no pericolic air
b) including pericolic air
c) early vs. delayed – a controlled trial

Feasibility studies
Colonoscopy in acute diverticulitis - 3 steps -

Colonoscopy in all patients with acute diverticulitis:

a) but no pericolic air
b) including pericolic air
c) early vs. delayed – a controlled trial
Patients and Methods
Step I

- Patients hospitalized for acute diverticulitis:
  - LLQ abdominal tenderness
  - fever
  - ↑ WBC

- Diagnosis confirmed by abdominal CT
  - localized thickening of colonic wall
  - Inflammation of pericolic fat
Patients and Methods
Step I

Excluded:
- patients with:
  pericolic air
  free perforation
- previous colonoscopy within a year
Patients and Methods

- Treated with IV antibiotics
- Signed a consent form
- Cleansing with oral phosphosoda
- Colonoscopy on the day of discharge
- Conscious sedation
- Remained for at least 6 hrs

Telephone contact 1&3 days later
Flow Chart of Patients
Step I

55 pts with acute diverticulitis

6 pts excluded
4 refused colonoscopy
2 had recent colonoscopy

10 pts excluded due to pericolic air

49 pts agreed to colonoscopy

39 pts underwent colonoscopy
no complications
Patients and Methods
Step II

- **Included:**
  - patients with pericolic air

- **Excluded:**
  - patients with free perforation
  - previous colonoscopy within a year
Flow Chart of Patients

Step II

67 pts with acute diverticulitis

9 pts excluded
7 refused colonoscopy
2 had recent colonoscopy

58 pts agreed to colonoscopy

4 excluded due to free perforation

54 pts underwent colonoscopy
6 had pericolic air
1/6 perforated
Combined analysis of the two studies
Results

- 107 pts consented colonoscopy
- 93 pts underwent colonoscopy
- Age: 62 (38-85) yrs
- Gender (M/F): 47/60
- No. of attacks:
  - 1: 91 pts (85%)
  - 2: 16 pts (15%)
- Time to colonoscopy: 5.8 (3-12) days
Results

• Cecal intubation: 75 pts (81%)

• Incomplete colonoscopy: 18 pts (19%)
  - 10 colonic stricture
  - 5 pain
  - 2 poor preparation
  - 1 obstructing carcinoma

• Second colonoscopy:
  - success rate: 16 pts (100%)
  - 2 pts operated: carcinoma ; recurrent diverticulitis
Endoscopic Findings

- **Polyps**: 11 in 9 patients
  - Size: 10-20 mm
  - Location:
    - 2 rectum
    - 4 descending colon
    - 5 ascending colon
- **Obstructing carcinoma of sigmoid colon**
- **Chicken bone trapped in a diverticulum**
Histologic Findings

9 tubular adenoma

1 tubulovillous adenoma

1 tubulovillous adenoma with carcinoma
Endoscopic Findings

- Polyps: 11 in 9 patients
  - Size: 10-20 mm
  - Location:
    - 2 rectum
    - 4 descending colon
    - 5 ascending colon
- Obstructing carcinoma of sigmoid colon
- Chicken bone trapped in a diverticulum
History of Pt with Carcinoma

- 55 y/o man
- Clinical presentation of acute diverticulitis
- Improved on antibiotic therapy
- Scheduled for colonoscopy 6 wks later
- Failed to show up
- Readmitted 2 mos later
- Enrolled into the study
- Underwent colonoscopy
- Obstructing carcinoma at 50 cm
Endoscopic Findings

- Polyps: 11 in 9 patients
  - Size: 10-20 mm
  - Location:
    - 2 rectum
    - 4 descending colon
    - 5 ascending colon
- Obstructing carcinoma of sigmoid colon
- Chicken bone trapped in a diverticulum
Endoscopic Findings

- 73 y/o female
- Acute diverticulitis
- No improvement for 10 days
- Underwent colonoscopy
- Chicken bone trapped in a diverticulum
- Purulent discharge
- Bone removed endoscopically
- Immediate improvement
Bone Stuck in a Diverticulum
Complications

- One patient perforated the sigmoid colon
- An 88 y/o female with pericolic air
- Colonoscopy on day 9 of hospitalization
- She did well following surgery
- Discharged 2 weeks later
Summary

Colonoscopy in acute diverticulitis:

- Feasible, although more difficult
- Safe, if exclude pts with peri-diverticular air
- Therapeutic, in some pts with a refractory course
Colonoscopy in acute diverticulitis
- step III -

Colonoscopy in all patients with acute diverticulitis:

a) but no pericolic air
b) including pericolic air
c) early vs. delayed – a controlled trial
Prospective Randomized Controlled Trial

• Patients with acute diverticulitis

• Exclusion criteria:
  - pericolic air
  - free perforation
  - recent colonoscopy

• Randomization to colonoscopy: immediate vs. delayed
Prospective Randomized Trial

62 pts with diverticulitis

- Delayed colonoscopy 30 pts
  - 3 pts waiting
  - 8 did not show
  - 19 colonoscopies
  - 3 pts with polyps
  - Cecum not reached
  - No complications

- Immediate colonoscopy 32 pts
  - 32 colonoscopies
  - 1 pt with polyp
  - Cecum not reached
  - 4

No complications
Conclusions

Patients with acute diverticulitis:

- Abdominal CT seems to be sufficient
- Routine colonoscopy is not advocated
- Reserved for pts with a refractory course
Colonoscopy in acute diverticulitis is:
feasible but seldom necessary