

## GS-ER combine meeting

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## Discussion

Colonoscopic perforation

### Definition

- Visualization of extra-intestinal structure during the endoscopic examination
- Presence of pneumo-peritoneum or retroperitoneal gas with signs of peritonitis
- Intra-operative finding of a perforated colon

### Incidence

- Colonoscopic : 0.16%
- Sigmoidoscopic : 0/09%

### Etiology

- Direct mechanical penetration
  - instrument tip
  - sharp flexion of the colonoscope
- High pressure applied when a loop is formed or barotrauma as a result of aggressive gas insufflation
- Most frequent site : sigmoid colon

### Risk factor

- polypectomy for polyps larger than 20 mm
- endoscopic submucosal resection for colorectal neoplasia
- pneumatic dilatation for anastomotic colonic stricture

## Risk factor

- patients over than 75 y/o: 6x
- female patients
- sedation in colonoscopy
- less-experienced endoscopist: increased ?
- Surgeon v.s. gastroenterologist

## Diagnosis

- Visualization of an extra-intestinal structure
- Symptoms and signs of peritonitis
  - Abdominal pain and tenderness
- Free air in abdomen in image study

## Management

- Conservative
  - IVF, Abx
- Surgical intervention
  - size of the perforation
  - adequacy of bowel preparation
  - timing of diagnosis
  - clinical condition
  - primary colonic pathology

## Surgical intervention

- peritoneal irritation or free air on abdominal X-ray
  - Early surgical exploration
  - Low morbidity, low mortality

## ***Endoscopic closure of the perforation***

- Requires high endoscopic skill
- Appropriate endoscopic devices.
- Size of the perforation suitable for endoscopic closure is less than 10 mm

**Thank you for listening**