International GI Training Grants

GRANT AWARDS: $10,000 | DEADLINE MARCH 31, 2022

Whether you live in the U.S. or another country, you may be eligible!

Acquire or develop new cognitive knowledge or technical skill to improve patient care in your geographic area. The grant is to be used for travel to and from the training center and to the ACG Annual Meeting as well as for incidental expenses related to the training.

Visit gi.org/trainees/gi-training-grants for more information.
ACG AWARDS

Nominate a Colleague by April 15th!

2022 Award Categories:

- New! NP/PA Award for Clinical Excellence
- Berk/Fise Clinical Achievement Award
- Community Service Award
- Distinguished Mentorship & Teaching Award
- Diversity, Equity & Inclusion Award
- International Leadership Award
- Master of the American College of Gastroenterology
- Samuel S. Weiss Award

Nominations for these awards will be presented at the College’s Annual Scientific Meeting in Charlotte, NC on October 22, 2022.

gi.org/about/awards

TUNE IT UP: A CONCERT TO RAISE COLON CANCER AWARENESS

ACG Virtual Community Event in honor of March Colorectal Cancer Awareness Month

Thursday, March 31, 2022 at 8 pm EDT

Hosted by Dr. Benjamin Levy and ACG Public Relations Committee

American College of Gastroenterology | gi.org/Concert
Participating in the Webinar

All attendees will be muted and will remain in Listen Only Mode.

Type your questions here so that the moderator can see them. Not all questions will be answered but we will get to as many as possible.
How to Receive CME and MOC Points

LIVE VIRTUAL GRAND ROUNDS WEBINAR
ACG will send a link to a CME & MOC evaluation to all attendees on the live webinar.

ABIM Board Certified physicians need to complete their MOC activities by December 31, 2022 in order for the MOC points to count toward any MOC requirements that are due by the end of the year. No MOC credit may be awarded after March 1, 2023 for this activity.

MOC QUESTION
If you plan to claim MOC Points for this activity, you will be asked to: Please list specific changes you will make in your practice as a result of the information you received from this activity.

Include specific strategies or changes that you plan to implement. THESE ANSWERS WILL BE REVIEWED.
ACG Virtual Grand Rounds
Join us for upcoming Virtual Grand Rounds!

Week 14
CAM and Psychological Therapies for Functional and Inflammatory Bowel Disease
Jill K. Deutsch, MD and Laurie A. Keefer, PhD
April 7, 2022 at Noon Eastern and NEW! 8pm Eastern!

Week 15
There will be No ACG Virtual Grand Rounds on April 14th due to Passover and Easter

Week 16
Practical Patient Education Tips and Strategies
Connie Arnold, PhD; Terry Davis, PhD; and James D. Morris, MD, FACG
April 21, 2022 at Noon Eastern and NEW! 8pm Eastern!

Visit gi.org/ACGVGR to Register

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American College of Gastroenterology | gi.org/Concert
ACG SPECIAL Grand Rounds
Join us for upcoming Virtual Grand Rounds!

Special Edition ACG VRG April 11, 2022 8pm - 9pm EDT
THE POTENTIAL FOR EARLIER HEREDITARY GI CANCER DETECTION WITH INSIGHT FROM A GI PRACTICE

Register Now for April 11th Webinar

Visit gi.org/ACGVGR to Register

Disclosures:

Speaker:
Gursimran Singh Kochar, MD, FACP, CNSC
Lilly Pharmaceuticals: Advisory Board
Corvetas research foundation: Advisory Board

Moderator:
Jason N. Schairer, MD
Dr. Schairer, moderator for this activity, has no relationships with ineligible companies.

*All of the relevant financial relationships listed for these individuals have been mitigated
Endoscopic Management of Strictures In IBD

Gursimran Singh Kochhar, MD, FACP, CNSC
Director Interventional Endoscopy
Associate Division Chief
Assistant Professor of Medicine, Drexel University
Division of Gastroenterology, Hepatology & Nutrition
Allegheny Health Network
Pittsburgh, PA, USA
@GKochharMD

Learning Objectives

• Understanding role of endoscopy in stricture management
• Role of endoscopic balloon dilatation in management of IBD strictures
• Emerging endoscopic modalities like endoscopic stricturotomy & enteral stenting
Case

- A 32-year-old young female with ileo-colonic Crohn’s disease, s/p ileo-cecal resection (5 years ago)
- Is now presenting to you for management of anastomotic stricture
- She is 9 months post partum with a stricture at TI, ~ 1 cm in length
- She is currently maintained on biweekly adalimumab for her CD

Case

- She was recently hospitalized secondary to a partial small bowel obstruction
- She did undergo EBD to ~15 mm 4 weeks ago (at anastomosis), with minimal relief in her symptoms
- CTE shows mild stricture at the anastomosis, mild pre-stenotic dilatation, and mucosal enhancement in distal TI
Case

Which of the following options would you recommend:
1: Repeat endoscopic balloon dilatation ~18 mm
2: Endoscopic balloon dilatation with injection of intralesional steroids
3: Consider endoscopic Stricturectomy
4: Surgical resection
5: Switch medication from anti-TNF
Strictures In IBD

- Are luminal narrowing that may lead to partial or complete obstruction
- They are result of long-standing inflammation and fibrosis
- The terminal ileum and ileo-colonic junctions are predominant location of strictures

Tharian B et al Inflamm Bow Dis 2016;22: 1184-97
Chen M, Inflamm Bow Dis. 2015;21:2222-40

Strictures In IBD

- 5–24% patients have stricturing phenotype
- Till date no effective medical treatment
- Surgery is gold standard

Stricture management

- Medical Management
- Endoscopic Management
- Surgical Management
- Balloon Dilatation
- Endoscopic Stricturotomy
- Enteral Stenting

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Goals of Endoscopic Therapy

• Improve obstructive symptoms
• Improve drainage symptoms
• Reduce complications related to stricture formation
• Adjunct to medical & surgical therapy
• Space out need for surgery
Goals of Endoscopic Therapy

• Improve obstructive symptoms
• Improve drainage symptoms
• Reduce complications related to stricture and fistula
• Adjunct to medical & surgical therapy
• Space out need for surgery

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Endoscopic Balloon Dilatation

• Multiple studies have reported technical success and clinical efficacy of EBD
• EBD is less invasive
• No risk of adhesions & preservation of bowel length

Endoscopic Balloon Dilatation

- The through-the-scope hydrostatic balloon is the most commonly used
- There are 2 fashions of EBD: retrograde and antegrade
- EBD under a fluoroscopic guidance is preferred

Chen M, Inflamm Bow Dis. 2015;21:2222-40

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American College of Gastroenterology
# Endoscopic Balloon Dilatation

<table>
<thead>
<tr>
<th>Author</th>
<th>No. Patients</th>
<th>Technical success (%)</th>
<th>Major Complication (%)</th>
<th>Surgical Intervention (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Couckuyt et al.</td>
<td>55</td>
<td>90</td>
<td>11</td>
<td>35</td>
</tr>
<tr>
<td>Thomas-Gibson et al.</td>
<td>59</td>
<td>74</td>
<td>3</td>
<td>61</td>
</tr>
<tr>
<td>Hagel et al.</td>
<td>77</td>
<td>65</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>Gustavsson et al.</td>
<td>178</td>
<td>89</td>
<td>11</td>
<td>36</td>
</tr>
<tr>
<td>Thienpont et al.</td>
<td>138</td>
<td>97</td>
<td>8</td>
<td>24</td>
</tr>
<tr>
<td>Mueller et al.</td>
<td>55</td>
<td>95</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>Atreja et al.</td>
<td>128</td>
<td>83</td>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>Andujar X et al.</td>
<td>187</td>
<td>79.5</td>
<td>1.3</td>
<td>23</td>
</tr>
<tr>
<td>Sivasailam B et al.</td>
<td>99</td>
<td>75</td>
<td>3.3</td>
<td>33</td>
</tr>
</tbody>
</table>

Tharian B et al. *Inflamm Bow Dis* 2016;22:1184-97  
Andujar X et al. *Surgical Endos* 2020;34:1112-22  
Sivasailam B et al. *Inflamm Bow Dis* 2021:27:1230-36
Advantages of EBD

• Easy access
• Less technical issues
• Low learning curve
• Low cost

Drawbacks of EBD

• No standard technique
• Need for repeat dilatations
• Less control (reliance on experience of endoscopy tech/nurse)
• Perforations ??
When to consider EBD

- Stricture length < 5-6 cm
- Can be done if multiple strictures are in close proximity
- Predominantly fibrotic stricture
- Benign stricture
- Preferably straight bowel lumen
- No associated fistula or abscess


When to Avoid EBD

- Deep ulcerations
- Stricture length > 5-6 cm
- Significant pre stenotic dilatation
- Concurrent fistula, abscess, sinus
- Angulated strictures
- Primary strictures

Endoscopic Stricturotomy

- Using electroincison knife (Ef) to widen the lumen of bowel
- Needle knife is a tool commonly used in endoscopic retrograde cholangiopancreatography (ERCP)
- Recently advances have been made in advancement of Ef
- Can be performed in radial, horizontal or circumferential fashion

EndoscopicStricturotomy (Est)

- A procedure in which the stenotic lumen of the gastrointestinal tract is widened by incision alone

EndoscopicStricturoplasty

- A procedure in which the stenotic lumen of the gastrointestinal tract is widened by incision and assessed by endoscopic clipping
Equipment

Endocut Q 3-1-3
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## Endoscopic Stricturotomy in IBD

<table>
<thead>
<tr>
<th>Authors</th>
<th>Patients (N)</th>
<th>Location</th>
<th>Technical Success</th>
<th>Adverse events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lan et al 2015</td>
<td>85</td>
<td>Multiple locations</td>
<td>100%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Lan et al 2018</td>
<td>21</td>
<td>Anastomotic</td>
<td>100%</td>
<td>8.8%</td>
</tr>
<tr>
<td>Lan et al 2019</td>
<td>35</td>
<td>Anastomotic</td>
<td>100%</td>
<td>10.2%</td>
</tr>
<tr>
<td>Zhang et al 2019</td>
<td>49</td>
<td>Multiple locations</td>
<td>100%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Lan et al 2019</td>
<td>40</td>
<td>Pouch Inlet</td>
<td>100%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Kochhar G 2020</td>
<td>11</td>
<td>Multiple locations</td>
<td>92%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Lan et al 2020</td>
<td>13</td>
<td>Terminal Ileum</td>
<td>100%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Moroi et al 2020</td>
<td>5</td>
<td>Anastomotic</td>
<td>100%</td>
<td>20%</td>
</tr>
</tbody>
</table>

## Adverse Events in Est

<table>
<thead>
<tr>
<th>Study</th>
<th>Patients</th>
<th>Perforation</th>
<th>Bleeding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lan N 2015</td>
<td>85</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Lan N 2018</td>
<td>21</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Lan N 2019</td>
<td>49</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Lan N 2019</td>
<td>40</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Zhang 2019</td>
<td>49</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Lan N 2020</td>
<td>13</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Kochhar GS 2020</td>
<td>11</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
Post-procedural outcome | Patients treated with ESt (n = 35) | Patients treated with ICR (n = 147) | P value
--- | --- | --- | ---
Follow-up time, y (range) | 0.8 (0.2-1.7) | 2.2 (1.2-4.4) | <0.001
Escalation of CD medications | 6 (17.1) | 6 (4.1) | 0.005
Symptomatic improvement | 14/24 (58.3) | 123 (83.7) | 0.004
Disease-associated emergency department visit | 8 (22.9) | 46 (31.3) | 0.10
Disease-associated hospitalization | 8 (22.9) | 70 (47.6) | 0.008
Stricture-related secondary surgery | 4 (11.3) | 15 (10.2) | 0.83
Clavien-Dindo classification (per procedures) | 5/49 (10.2) | 47/147 (31.9) | 0.003
  I | 0 (0.0) | 9 (6.1) | 0.62
  II | 4 (8.2) | 31 (21.1) | 0.04
  III | 1 (2.0) | 7 (4.8) | 0.40

Lan N et al. Gastrointest Endosc 2019;90:259-68
### Post-procedural outcome

<table>
<thead>
<tr>
<th>Post-procedural outcome</th>
<th>Patients treated with ESt (n = 35)</th>
<th>Patients treated with ICR (n = 147)</th>
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<td>0.40</td>
</tr>
</tbody>
</table>

*ESt V/s Ileo-colonic Resection*

Lan N et al. Gastrointest Endosc 2019;90:259-68
### ESt V/S EBD

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Stricturotomy (n=21)</th>
<th>Balloon Dilation (n=164)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follow-up time, year</td>
<td>0.8 (0.1–1.6)</td>
<td>4.0 (0.8–6.9)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Age at procedure, year</td>
<td>43.3 ± 14.5</td>
<td>42.8 ± 13.4</td>
<td>0.76</td>
</tr>
<tr>
<td>Duration from last surgery to procedure, year</td>
<td>6.4 (1.7–16.4)</td>
<td>7.8 (3.6–13.3)</td>
<td>0.56</td>
</tr>
<tr>
<td>Duration from CD diagnosis to procedure, year</td>
<td>19.6 (11.4–8.1)</td>
<td>16.6 (9.9–25.8)</td>
<td>0.85</td>
</tr>
<tr>
<td>Immediate technical success</td>
<td>21 (100.0%)</td>
<td>147 (89.5%)</td>
<td>0.25</td>
</tr>
<tr>
<td>Symptomatic improvement</td>
<td>8/11 (72.7%)</td>
<td>59/103 (45.4%)</td>
<td>0.08</td>
</tr>
<tr>
<td>Endoscopic improvement</td>
<td>8/17 (47.1%)</td>
<td>57/163 (35.0%)</td>
<td>0.32</td>
</tr>
<tr>
<td>Escalation of drug after procedure</td>
<td>13 (61.9%)</td>
<td>53 (32.3%)</td>
<td>0.09</td>
</tr>
<tr>
<td>Additional endoscopic therapy (EBD or ES)</td>
<td>6 (28.6%)</td>
<td>98 (59.8%)</td>
<td>0.85</td>
</tr>
</tbody>
</table>

Lan N. Inflamm Bowel Dis. 2018;24:897-907
### ESt V/S EBD

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<th>Balloon Dilation (n=164)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disease related emergency department visits</td>
<td>2 (9.5%)</td>
<td>40 (24.4%)</td>
<td>0.74</td>
</tr>
<tr>
<td>Stricture-related</td>
<td>Per Patients 1 (2.0)</td>
<td>34 (20.7%)</td>
<td>0.33</td>
</tr>
<tr>
<td></td>
<td>Per visit 4/11 (36.4%)</td>
<td>78/104 (75.0%)</td>
<td>0.001</td>
</tr>
<tr>
<td>Disease related hospitalization</td>
<td>7 (33.3%)</td>
<td>40 (24.4%)</td>
<td>0.93</td>
</tr>
<tr>
<td>Stricture related</td>
<td>Per Patients 1 (4.8%)</td>
<td>33 (20.1%)</td>
<td>0.16</td>
</tr>
<tr>
<td></td>
<td>Per visit 2/12 (16.7%)</td>
<td>57/102 (55.9%)</td>
<td>0.35</td>
</tr>
<tr>
<td>Complication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perforation</td>
<td>Per patients 0/21 (0.0%)</td>
<td>4/164 (2.4%)</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>Per procedures 0/45 (0.0%)</td>
<td>5/478 (1.1%)</td>
<td></td>
</tr>
<tr>
<td>Transfusion required bleeding</td>
<td>Per patients 3/21 (14.3%)</td>
<td>0/164 (0.0%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Per procedures 4/45 (8.8%)</td>
<td>0/478 (0.0%)</td>
<td></td>
</tr>
<tr>
<td>Subsequent surgery</td>
<td>2 (9.5%)</td>
<td>55 (33.5%)</td>
<td>0.03</td>
</tr>
</tbody>
</table>
5-year surgery-free survival curve after treated with endoscopic stricturotomy (ES) versus endoscopic balloon dilation (EBD)

Lan N. Inflamm Bowel Dis, 2018;24:897-907

AHN Experience

- 100 cases performed so far
- Location:
  UGI - 7
  Ileo-colonic - 41
  Anal stricture - 14
  Pouch inlet stricture - 9
  IC valve - 6
  Primary small bowel: 17
  Colon: 6

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**AHN Experience**

- Technical success - 100%
- Bleeding - 5 patients (5.00%)
- Perforation - 1 (1.00%)
- Longest follow up period: 4.3 years
- 1 patient required surgery - pouch failure

**Advantages of Stricturotomy**

- Preserve bowel length
- More control
- Similar surgery free survival as resection
- Need for repeat procedures is less
- Very good for anal strictures
When to consider endoscopic stricturotomy

- Short fibrotic strictures (< 3 cm)
- Anal strictures
- Strictures that do not respond to EBD
- Strictures with very high risk of perforation
Can we Combine Est and EBD
How about primary colon strictures
Drawbacks of EST

- Data is limited
- No defined role yet
- Requires extensive training & expertise
- No billing codes
- Can be time consuming
- Complications ?? Bleeding

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Enteral Stents In IBD
Enteral Stents In IBD

- Stents have always been an avenue of interest
- It has been attempted in patients with IBD
- Early results were not encouraging
- Recent advances in stent designs and delivery systems has renewed interest

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Original Article: Clinical Endoscopy

Therapeutic resolution of focal, predominantly anastomotic Crohn’s disease strictures using removable stents: outcomes from a single-center case series in the United Kingdom

Ronit Das, MRCP, DPMSA, 1,2 Rajeev Singh, BSc, FRCP, 1 Said Din, DM, MRCP, 1 Jonathan Lund, DM, 1,2 Rajesh Krishnamoorthy, DM, MRCP, 1 Stephen Haring, MD, 1 Bernard Norton, MD, 1 Jessica Williams, BMBS, 1 Catherine Fraser, MD, 1 Andrew Goddard, MD, MA, 1,2,3 Andrew Cole, MA, DM 1

Derby/London - United Kingdom

Self-expandable metal stents versus endoscopic balloon dilation for the treatment of strictures in Crohn’s disease (ProtDilat study): an open-label, multicentre, randomised trial

Carmen Lara, 1 Xavier Andújar, 1 Juan B. Casado, Vicente Sánchez, Enric Benet, Beatriz Sádaba, María Dolores Martín-Arroyo, Antonia Navarro, 1 Jesús Barco, Carmen Dueñas, José Ramón Fernández, David Bouquet, David Martinez, Juan Ramón Florés, Fernando González-Hevia, Francisco Pérez-Bellido, Vicente Peris, Sophie Granados, José Raúl Muñoz, Emper Saez, Jordi Gomis, Marta Masi-Bausa-Watts, Enrique Fernández-Bahane, Wang Muñoz, María Esteban, on behalf of the Grup de Tractament de les Enfemadedades de Crohn i Colítis Ulcerosa (GTECCU)
SEMS In IBD

• 21 patients underwent stent therapy
• Most strictures treated were anastomotic (19 of 21)
• Only 2 TI strictures were de novo (2 of 21)
• Only endoscopically impassable strictures were treated

Das et al, Gastro Intest Endosc. 2020;92:344-352

Inaccessible or inflammatory strictures were excluded
• Strictures were considered inflammatory on endoscopic inspection if displaying degrees of erythema, mucosal engorgement, decreased vascular pattern, mucosal friability, erosions, spontaneous bleeding, or frank ulceration

Das et al, Gastro Intest Endosc. 2020;92:344-352
SEMS In IBD

- Partially covered stents were used
- Stents were retrieved in 7 days
- Technically successful in 95.8% (23 of 24)
- The average stricture length was 3.3 cm,
- 100% of strictures visualized were found to be dilated to at least stent diameter (20 mm)

Das et al, Gastro Intest Endosc. 2020;92:344-352

SEMS in IBD

- No reported need for surgery during follow up (3-50 months)
- 2 patients required re-intervention

Das et al, Gastro Intest Endosc. 2020;92:344-352
SEMS In IBD

• 5 adverse events
• 3 stent migrations
• 2 patients presented with abdominal pain while stent in situ

Das et al, Gastro Intest Endosc. 2020;92:344-352

SEMS In IBD

• Multicenter RCT, FCSEMS vs EBD
• Fibrotic strictures < 10 cm length
• 80 patients were included
• 39 (49%) FCSEMS, 41 (51%) EBD

SEMS In IBD

- Symptoms free survival EBD group 80% at 1 year
- FCSEMS ~ 51%
- The duration of treatment efficacy was 148.6 days (95% CI 48.4–248.9) in the EBD group and 89.7 days [37.2–142.2]) in the FCSEMS group


SEMS In IBD

- Stent migration was seen in 97% of the patients
- Two patients had proximal migration
- One perforation in each treatment group was observed
- One patient had bleeding

<table>
<thead>
<tr>
<th></th>
<th>EBD group (N=41)</th>
<th>FCSEMS group (N=39)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time of procedure</td>
<td>60.1 (41.0)</td>
<td>41.9 (25.2)</td>
</tr>
<tr>
<td>Personnel cost</td>
<td>€ 111.44 (83.60)</td>
<td>€ 86.01 (54.30)</td>
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<tr>
<td>Recovery cost</td>
<td>€ 650.19 (911.04)</td>
<td>€ 369.99 (455.22)</td>
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<tr>
<td>Consumables cost</td>
<td>€ 17.65 (6.94)</td>
<td>€ 14.44 (4.66)</td>
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<tr>
<td>Endoscopic room &amp; equipment Cost</td>
<td>€ 25.40 (8.92)</td>
<td>€ 21.27 (7.20)</td>
</tr>
<tr>
<td>Specific devices cost</td>
<td>€ 557.78 (333.24)</td>
<td>€ 1429.19 (426.25)</td>
</tr>
<tr>
<td>Laundry &amp; sterilization cost</td>
<td>€ 3.15 (1.11)</td>
<td>€ 2.64 (0.91)</td>
</tr>
<tr>
<td>Total cost</td>
<td>€ 1365.63 (1049.51)</td>
<td>€ 1923.55 (654.52)</td>
</tr>
</tbody>
</table>

### SEMS In IBD

|                        | EBD group  
(N-41)                  | FCSEMS group  
(N=39)               |
<table>
<thead>
<tr>
<th></th>
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<tr>
<td>Time of procedure</td>
<td>60.1 (41.0)</td>
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<tr>
<td>Personnel cost</td>
<td>€ 111.44 (83.60)</td>
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<tr>
<td>Recovery cost</td>
<td>€ 650.19 (911.04)</td>
</tr>
<tr>
<td>Consumables cost</td>
<td>€ 17.65 (6.94)</td>
</tr>
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<tr>
<td>Total cost</td>
<td>€ 1365.63 (1049.51)</td>
</tr>
</tbody>
</table>


### Issues With SEMS In IBD

- No dedicated IBD stents
- Tissue reaction to foreign body
- No dedicated technique
- ? Duration of stenting
- Don’t have long term follow up data

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Procedural Considerations

- Obtain CTE or MRE
- Optimal bowel preparation
- Consider fluoroscopy for complex strictures
- No need to stop biological therapy, consider stopping or tapering corticosteroid therapy
- MAC v/s. general anesthesia, endoscopist preference & patient’s medical condition

Procedure Considerations

- Biologics can be safely continued in patients undergoing endoscopic intervention
- A follow-up endoscopy to assess the long-term response to therapy, and to repeat treatment within a year (if needed) is suggested
- Complications like perforation can happen independent of the size of the balloon used for dilatation


Procedural Considerations

- Asymptomatic or incidental strictures, dilate if benefits outweigh risk
- Use graded dilatation in stepwise manner
- Wire guided balloons are preferred
- Retrograde dilatation preferred over antegrade
- Biopsy the stricture
- No use of intralesional steroids

Case

• Which of the following options would you recommend:
  1: Repeat endoscopic balloon dilatation
  2: Endoscopic balloon dilatation with intralesional steroids
  3: Endoscopic Stricturotomy
  4: Surgical resection
  5: Switch medication from anti-TNF

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One Year Follow Up
**Approach to a patient with stricture**

Pre-procedure imaging (CTE/ MRE)

- **Size <3 cm**
  - Endoscopic stricturotomy

- **Size = 3-5 cm**
  - Endoscopic balloon dilatation

- **Inflammation**
  - Medical optimization

- **Pre stenotic dilatation and length > 5cm**
  - Consider surgery

---

**Future direction**

- Standardization of endoscopic techniques
- Drug eluting balloons
- Drug eluting stents
- IBD Specific stents
- Use of 3-d printing for stricture model

Kochhar 2022
Summary

• **Patient first**, patient selection is very important
• Endoscopic therapy is safe and effective in management of IBD strictures
• Manage them in multi disciplinary fashion along with your IBD specialist and surgeons
• As endoscopy is evolving so is our various techniques

Thank You
Questions?

Speaker:
Gursimran Singh Kochar, MD, FACP, CNSC

Moderator:
Jason N. Schairer, MD

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