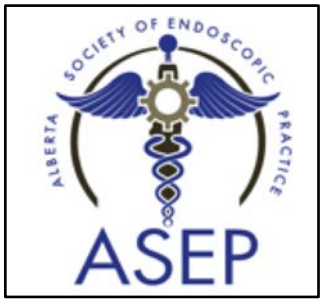
Pedunculated Polyps (ASEP 2020 – Small Group)



Jennifer Telford MD, MPH FRCPC

Clinical Professor, Division of Gastroenterology,
University of British Columbia, Vancouver, BC

David Armstrong MA, MB BChir, FRCPC

Professor, Division of Gastroenterology &
Farncombe Family Digestive Health Research Institute,
McMaster University, Hamilton ON

Name: Dr. Jennifer Telford

Conflict of Interest Disclosure (past 24 months)

Company	**Relationship**
Pendopharm	Research Support
Boston Scientific	Research Support
BC Cancer	Medical Director, Colon Screening Program

Name: Dr. David Armstrong

Conflict of Interest Disclosure (past 24 months)

Company	Relationship
AbbVie	Research Support, Educational Event
Allergan	Educational Event Sponsorship
Fresenius-Kabi	Educational Event Sponsorship
Janssen	Educational Event Sponsorship
Lupin	Educational Event Sponsorship
Medtronic	Research Support
Olympus Canada	Educational Event Sponsorship
Pendopharm	Advisory, Educational Event Sponsorship
Pentax Medical	Advisory, Educational Event Sponsorship
Pfizer	Consulting, Educational Event Sponsorship
Shire Canada	Advisory, Educational Event Sponsorship, Speaking
Takeda Canada	Educational Event Sponsorship

Name: Dr. David Armstrong

Conflict of Interest Disclosure (past 24 months)

Company	Relationship
Canadian Association of Gastroenterology (CAG)	Past President, Board Member
Canadian Digestive Health Foundation (CDHF)	Board Member
American College of Gastroenterology (ACG)	Past Governor, Ontario
World Gastroenterology Organization (WGO)	Chair, WGO Guidelines Committee
Canadian Partnership Against Cancer (CPAC)	Chair, National Colon Cancer Screening Network (NCCSN)
European Commission (EC)	Member, European Commission Initiative on Colorectal Cancer (ECCIC)
Canadian Standards Association (CSA Group)	Member, Electrosurgery Safety Committee

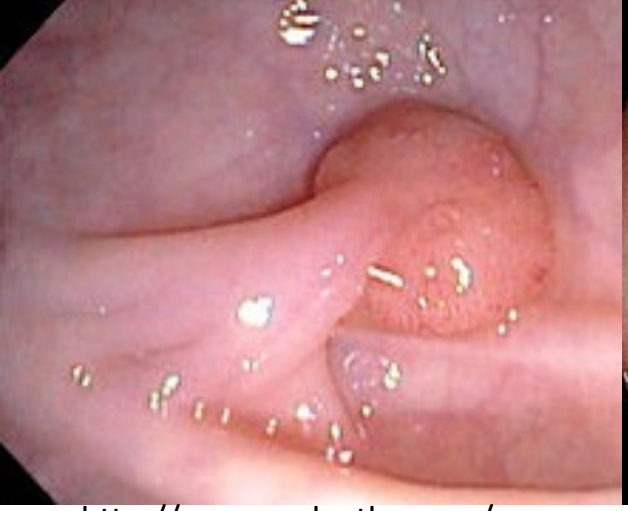
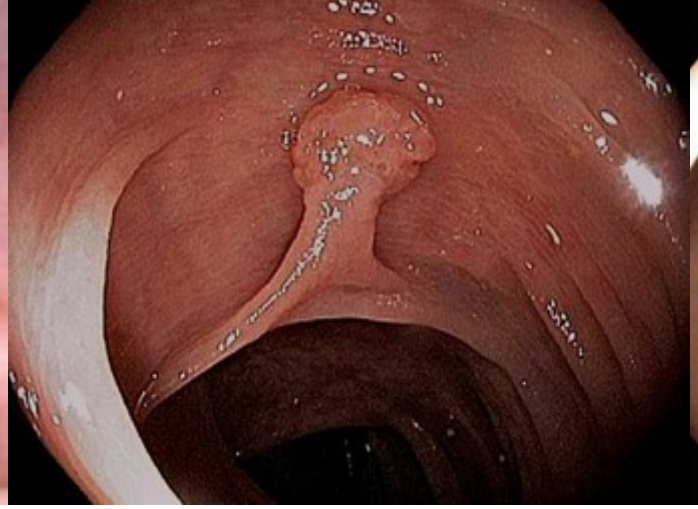
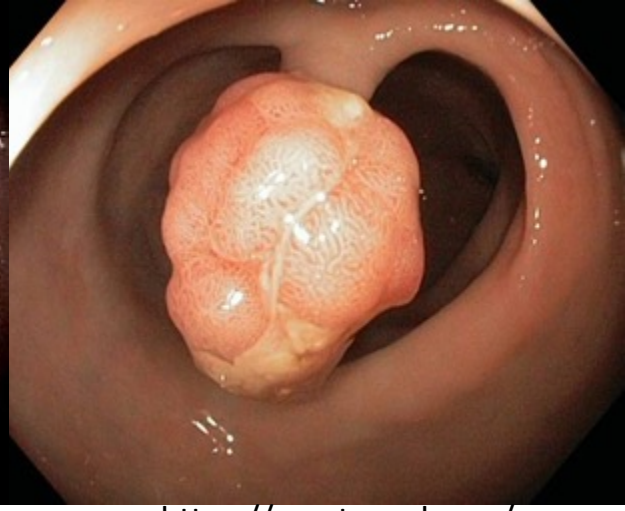
CanMEDS Roles Covered

X	**Medical Expert** (as *Medical Experts*, physicians integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional values in their provision of high-quality and safe patient-centered care. *Medical Expert* is the central physician Role in the CanMEDS Framework and defines the physician's clinical scope of practice.)
	Communicator (as *Communicators*, physicians form relationships with patients and their families that facilitate the gathering and sharing of essential information for effective health care.)
X	**Collaborator** (as *Collaborators*, physicians work effectively with other health care professionals to provide safe, high-quality, patient-centred care.)
X	**Leader** (as *Leaders*, physicians engage with others to contribute to a vision of a high-quality health care system and take responsibility for the delivery of excellent patient care through their activities as clinicians, administrators, scholars, or teachers.)
	Health Advocate (as *Health Advocates*, physicians contribute their expertise and influence as they work with communities or patient populations to improve health. They work with those they serve to determine and understand needs, speak on behalf of others when required, and support the mobilization of resources to effect change.)
X	**Scholar** (as *Scholars*, physicians demonstrate a lifelong commitment to excellence in practice through continuous learning and by teaching others, evaluating evidence, and contributing to scholarship.)
	Professional (as *Professionals,* physicians are committed to the health and well-being of individual patients and society through ethical practice, high personal standards of behaviour, accountability to the profession and society, physician-led regulation, and maintenance of personal health.)

Objectives

After this session, participants will:

- Understand the importance of lesion assessment before removal of a pedunculated colon polyp
- Appreciate the importance of appropriate patient positioning for the safe removal of a pedunculated colon polyp
- Be aware of the strategies available to minimize the risk of complications after removal of a pedunculated colon polyp

http://www.endoatlas.com/

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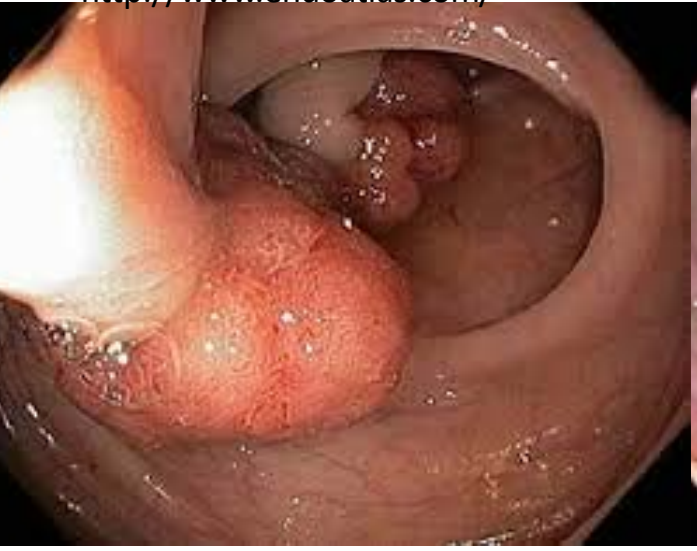
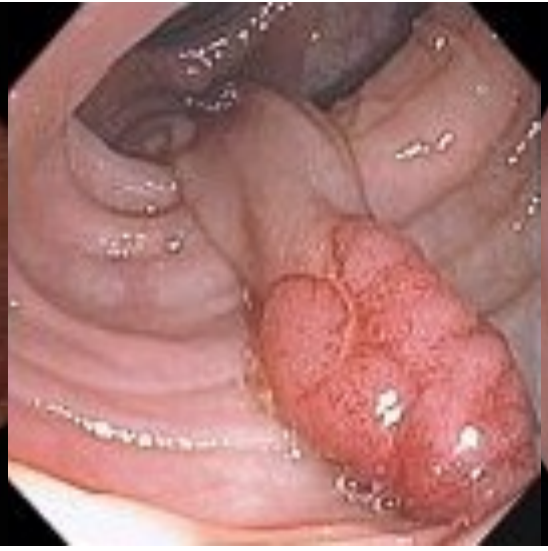
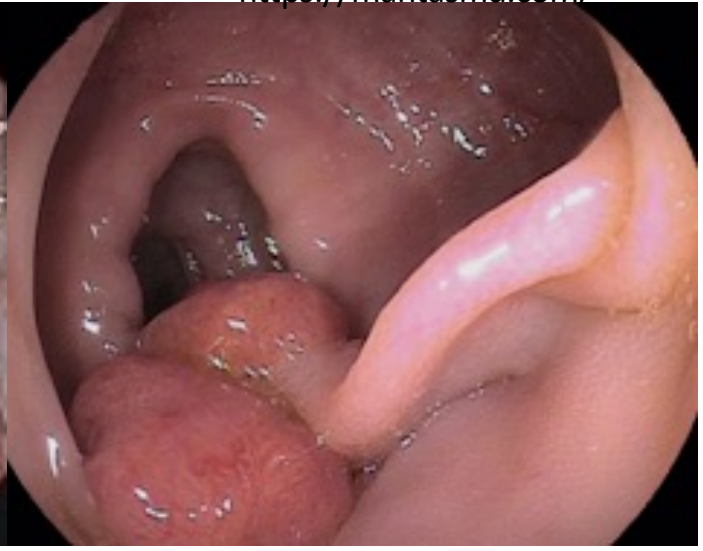
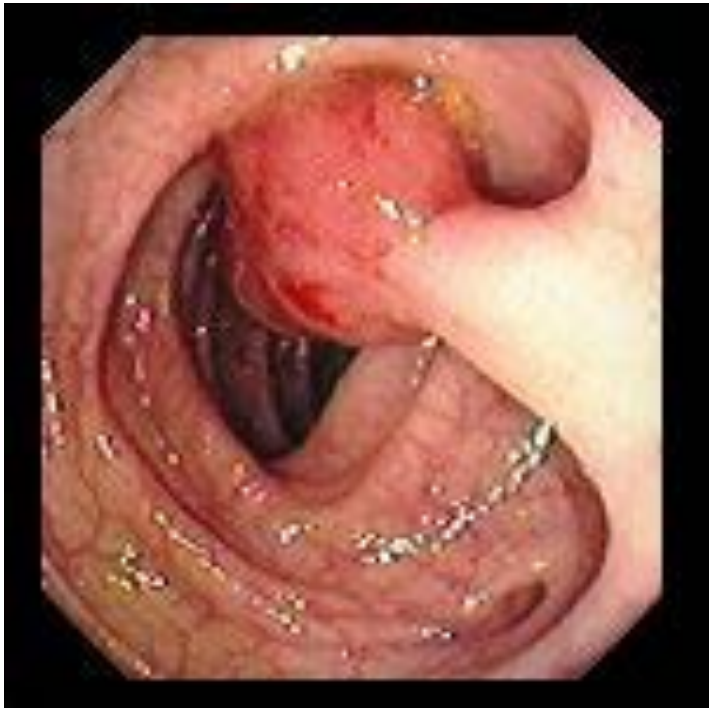




Potential Issues

- **Risk of Cancer**
- **Incomplete Resection**
- **Complications of Resection**
  - Bleeding
  - Thermal Injury
  - Perforation
- **Retrieval**

Case 1

- 51-year old woman
- Positive gFOBT
- No family history
- Good general health
- No medications or allergies

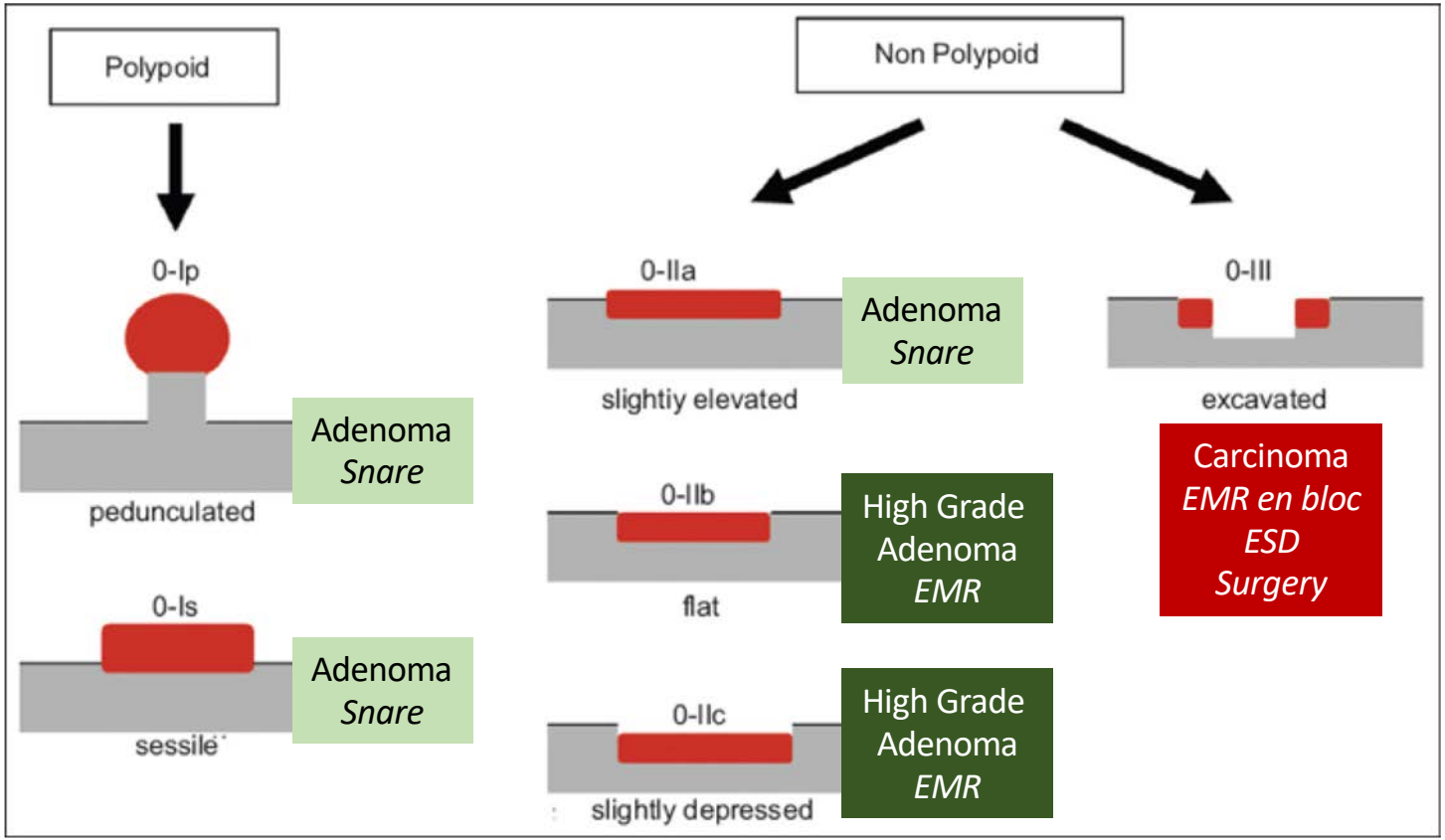


http://www.endoatlas.com/co_mt_04.html

Approach to Polypectomy

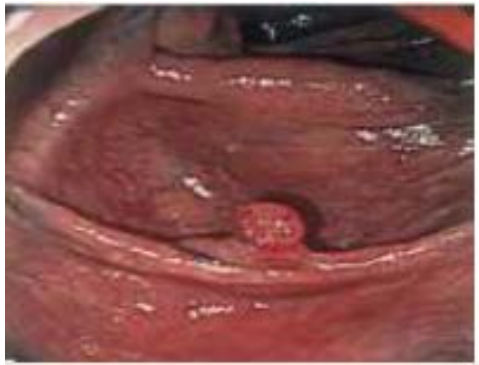
1. **Polyp Location and Size**
2. **Polyp Morphology**
3. **Pit Pattern**
4. **Red Flags**
    - Anticoagulation
    - Colon preparation quality
    - When to refer for advanced polypectomy
    - When to refer for surgery

Paris Classification of Polyps

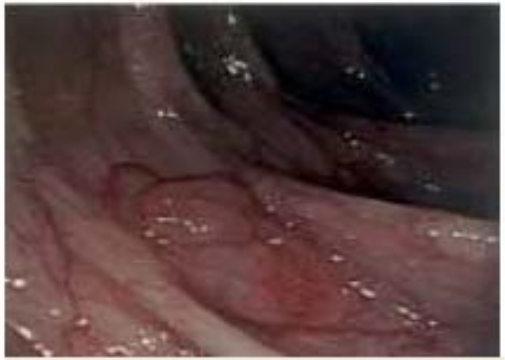


Meier B et al. Ann Gastroenterol 2017;30:592-597

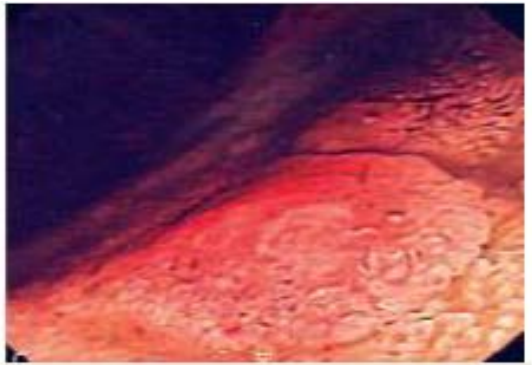
Paris Classification of Polyps



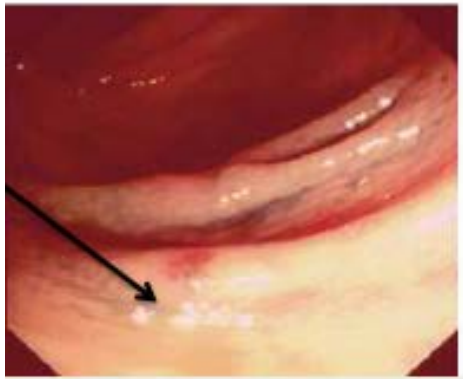
I-p (pedunculated)



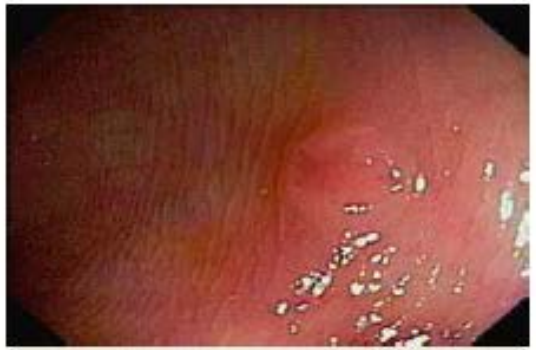
I-s (sessile)



II-a (flat elevated)



II-b (flat flat)

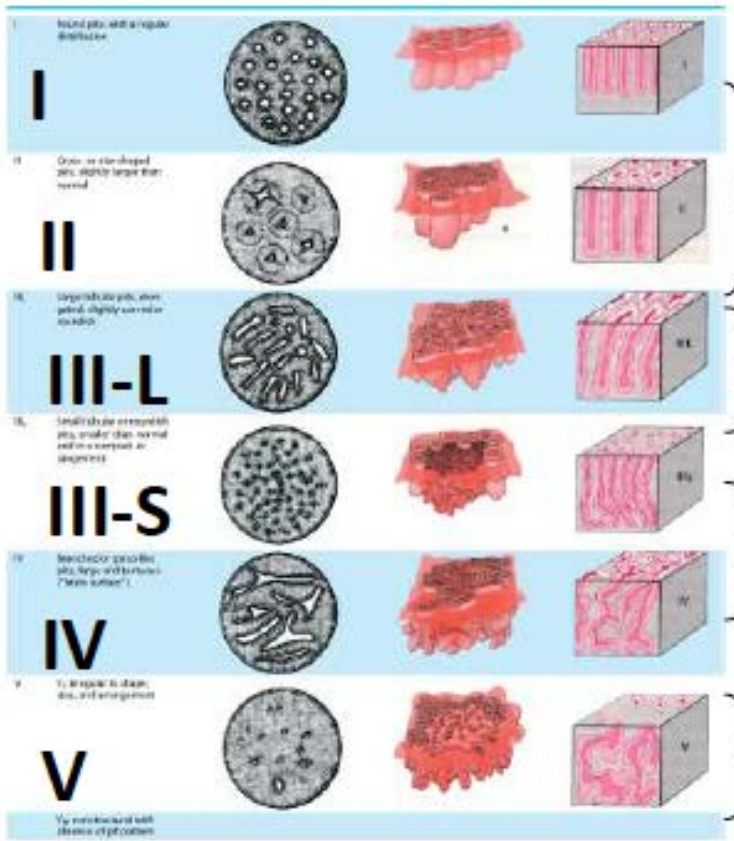


IIc (flat depressed)

III (flat ulcerated)

Coe SG et al. Am J Gastroenterol 2013; 108:219–226 - EQUIP Training Slide Set 2

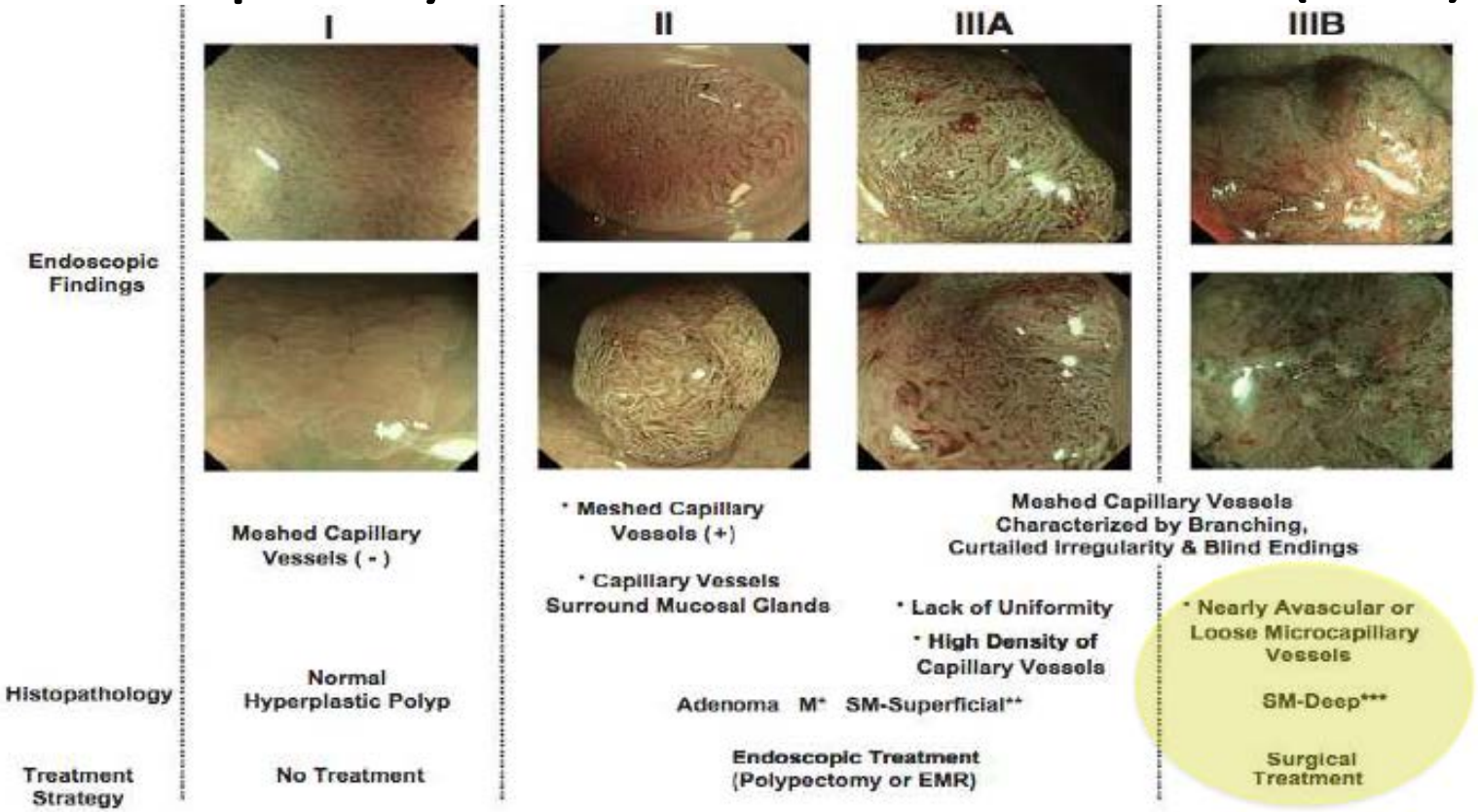
Kudo Pit Pattern Classification



Histology	Management
Hyperplastic	Nothing
Adenoma	Snare polypectomy
High grade adenoma	EMR en bloc Or piecemeal
Carcinoma	EMR en bloc, ESD, or surgery

Coe SG et al. Am J Gastroenterol 2013; 108:219–226 - EQUIP Training Slide Set 2

Sano Capillary Pattern Classification (NBI)

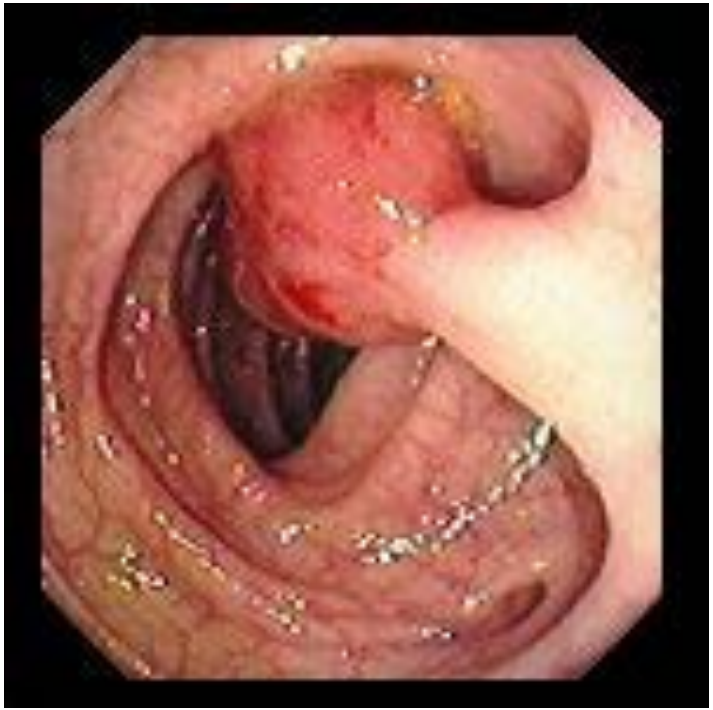


Uraoka T et al. Dig Endosc 2011;23(S1):112-115

Case 1

- 51-year old woman
- Positive gFOBT
- No family history
- Good general health
- No medications or allergies

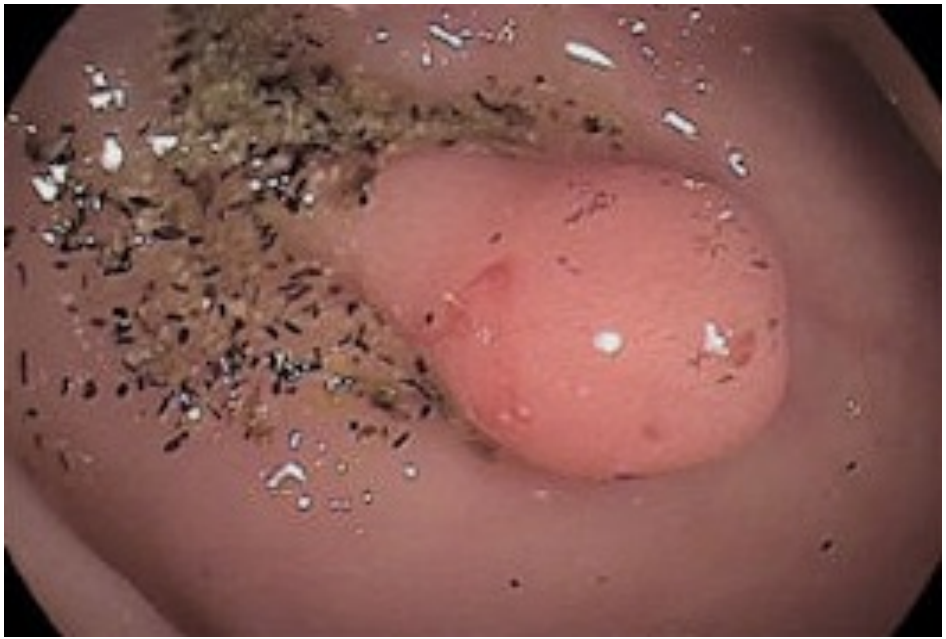
- *Benign appearance*
- *Adenocarcinoma invading muscularis mucosae*
- *No invasion of stalk*
- *Curative polypectomy*



http://www.endoatlas.com/co_mt_04.html

Case 2

- 71-year old woman
- Change in bowel habit
  - Constipation
- No family history
- Good general health
- DH: ASA EC 81 mg OD
  Clopidogrel 75 mg OD (held)
- Rectosigmoid polyp seen on entry



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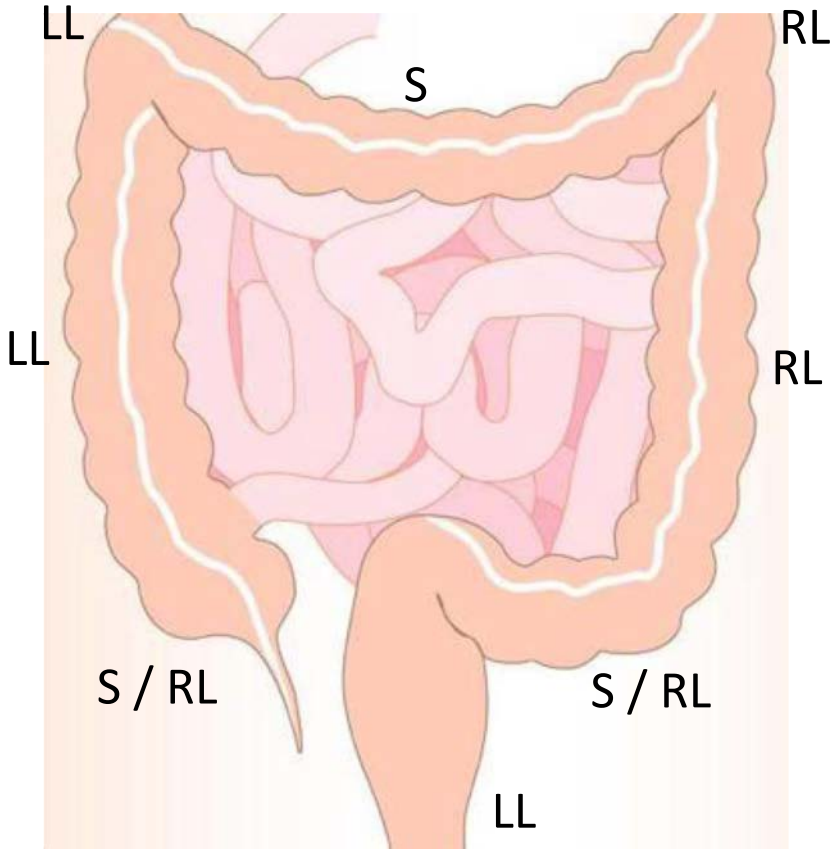
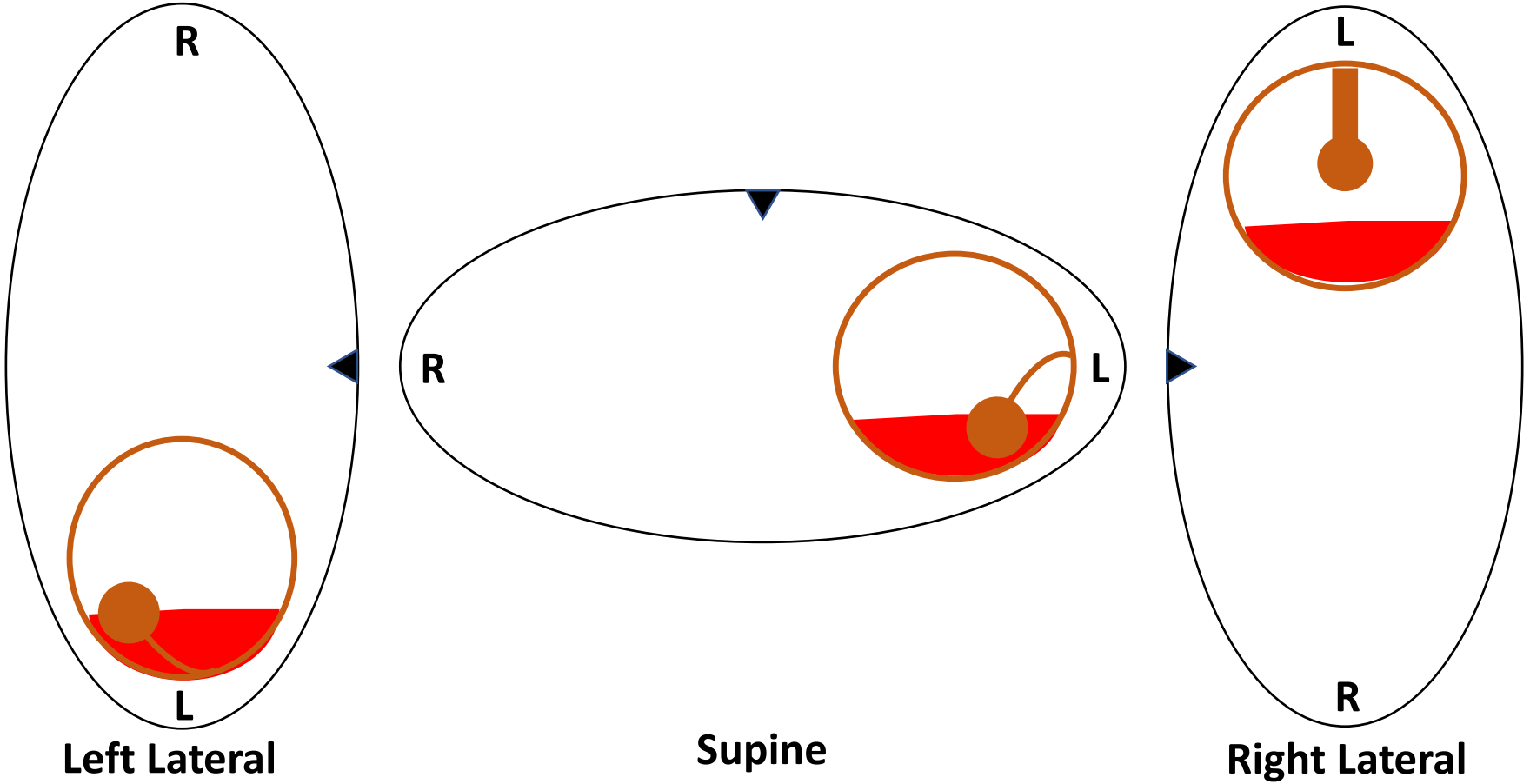
Polyp Visualization & Dynamic Position Change



- Easy with <u>light</u> sedation
- Reasons to change position
  - Advance scope
  - Visualise colon on withdrawal
  - Position polyp & fluid
- Optimal positions
  - S – Supine
  - LL – Left Lateral
  - P – Prone
  - RL – Right Lateral

S. Thomas-Gibson UEGW 2012

Patient Position



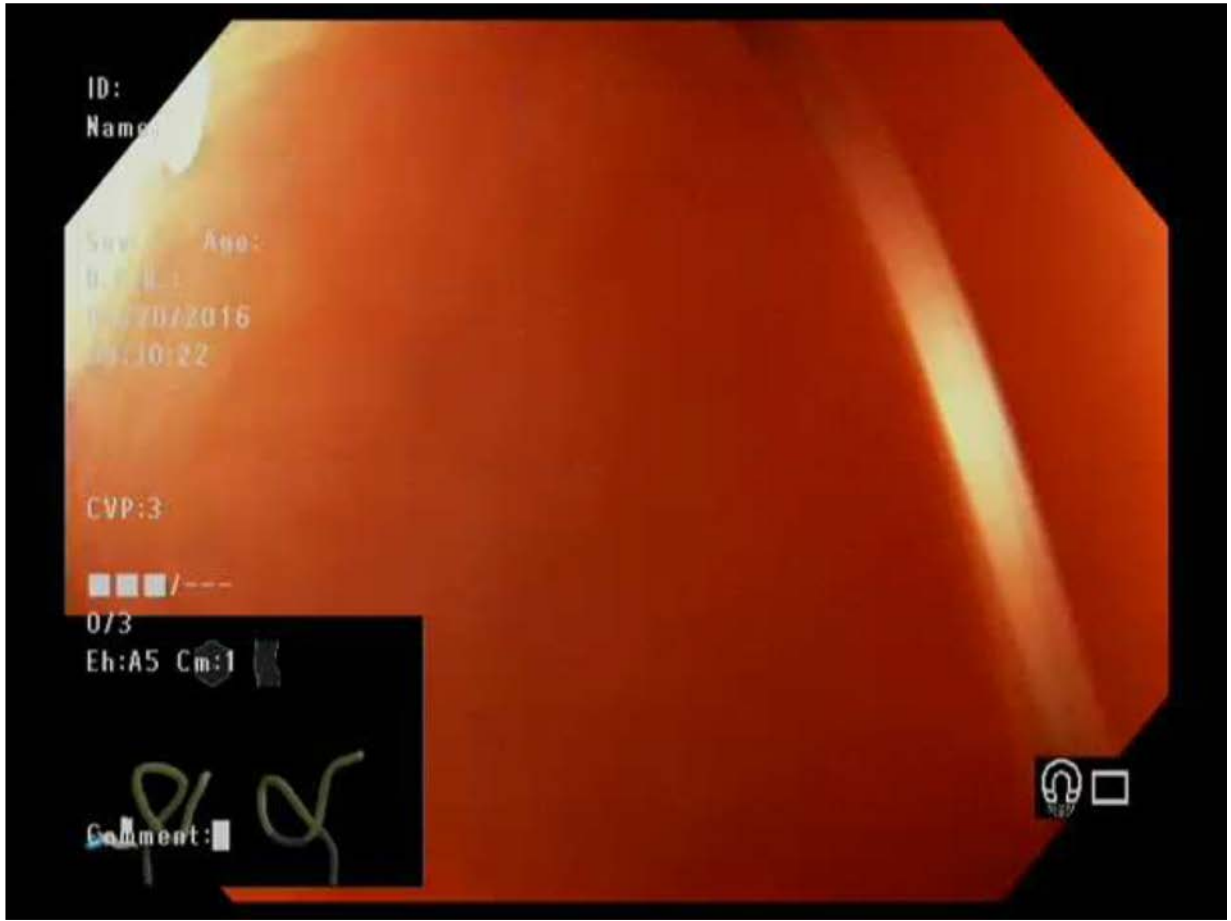
Left Lateral

Supine

Right Lateral

Scope Handling to Maximize Tip Control

You Can’t Torque if Your Scope is Looped!



Polypectomy: ‘Way In’ or ‘Way Out’

On the Way In

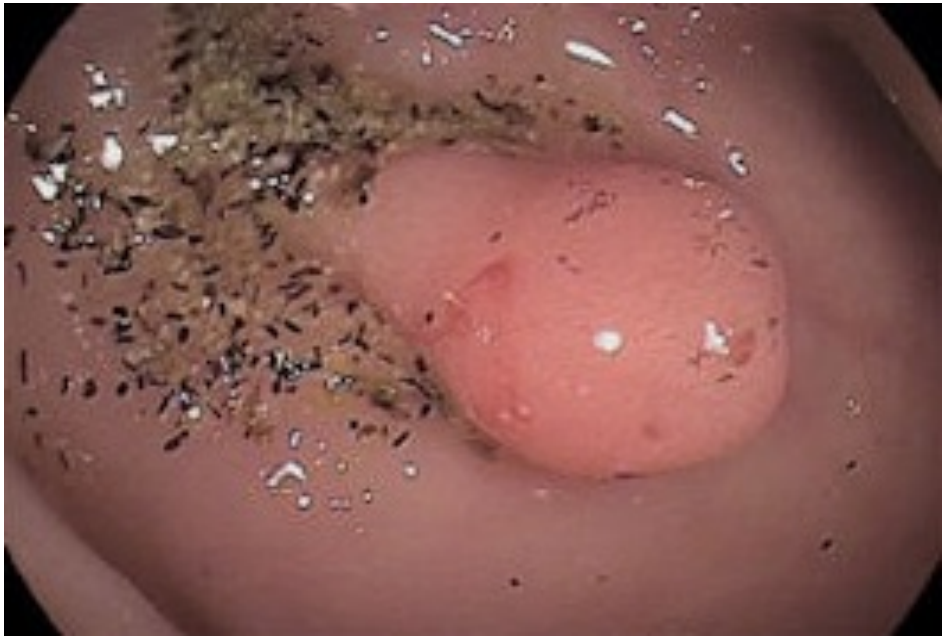
- Scope handling may be compromised
- Could increase the risk of perforation
- Theoretical risk of malignant seeding
  (PEG literature)

On the Way Out

- Difficulty finding the polyp

Case 2

- 71-year old woman
- Change in bowel habit
  - Constipation
- No family history
- Good general health
- DH: ASA EC 81 mg OD
  Clopidogrel 75 mg OD (held)
- Rectosigmoid polyp seen on entry

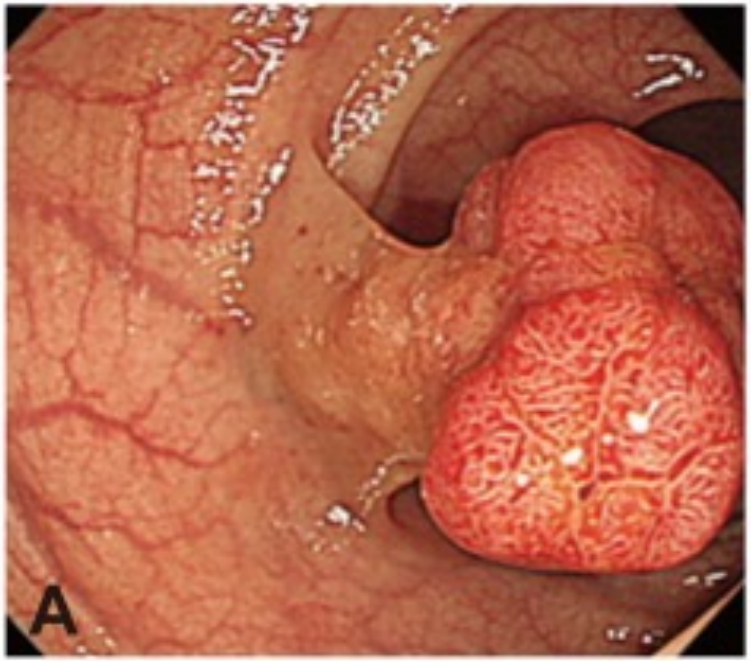


- *Tubular adenoma with focus of adenocarcinoma*
- *No invasion of stalk*
- *Curative polypectomy*

http://www.endoatlas.com/co_mt_04.html

Case 3

- 65-year old man
- Positive FIT
- No family history
- Good general health
- No medications of allergies
- Descending colon polyp seen on entry – 20 mm diameter



Boo S-J et al. Clin Endosc 2012;45:84-88

Technical Aspects

- **Snare Selection**
  - Must fit over the head of the polyp
  - Must be manoeuvrable down to the stalk
    - *Can be difficult with mega-polyps*
- **Type of Electrocautery Settings**
  - Blended current – mix of cut and cautery
  - Forced Coagulation
    - Greater thermal injury – greater potential for deep injury
- *Keep closed snare away from mucosa before applying current to reduce risk of deep thermal injury*

Prophylactic Hemostasis

- **Risk Factors for Post-Polypectomy Bleeding**
  - Polyp ≥ 10 mm
  - Polyp stalk ≥ 5 mm
  - Right colon
  - Malignant polyp
- **Pre-Treatment of Polyps**
  - Beneficial in larger polyps: ≥ 10 mm; especially if ≥ 20 mm
  - Pre-injection with epinephrine
  - Mechanical hemostasis with detachable snare or hemostatic clips

Pre-Treatment Options – None

1. Remove the polyp
2. Observe stalk for bleeding
3. If bleeding is noted
    1. Grasp stalk with snare
    2. Close snare for immediate hemostasis
4. After immediate control is achieved
    1. Ensure good visualization
    2. Apply definitive mechanical hemostasis
        - Hemostatic clip or detachable snare

Pre-Treatment Options – Injection

1. Injection the based of the polyp stalk with:
   - Dilute epinephrine (1:10,000) *or*
   - Standard injection solution (*e.g.* methylene blue & hydroxyethyl starch – HES)

Disadvantages

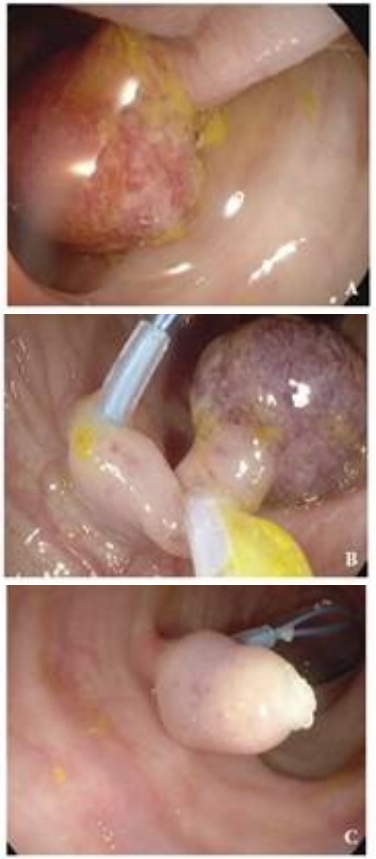
- Risks of epinephrine (heart rate, blood pressure, etc)

Advantages

- Injection solution may protect against deep thermal injury
- Allows use of hemostatic clips or detachable snare, if needed

Pre-Treatment Options – Detachable Snare

1. Place detachable snare around stalk before hot snare polypectomy
   - Tighten slowly until polyp head changes colour
2. Leave room for snare between detachable snare & head



Disadvantages

- Difficult to manoeuvre detachable snare over polyp
- Deployment errors common – need skilled assistant

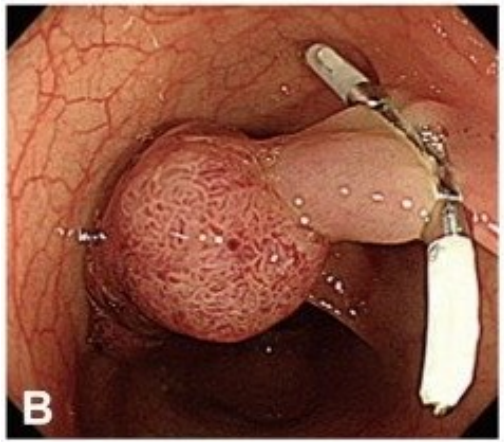
Advantages

- Detachable snare, eventually, falls off
- Less likely than clips to cause artefact or impair later resection

Tholoor S et al. Ann Gastroenterol 2013;26:(2)

Pre-Treatment Options – Hemostatic Clips

1. Place one or more clips on stalk before hot snare polypectomy
2. Leave enough room for snare between clips & polyp head



Disadvantages

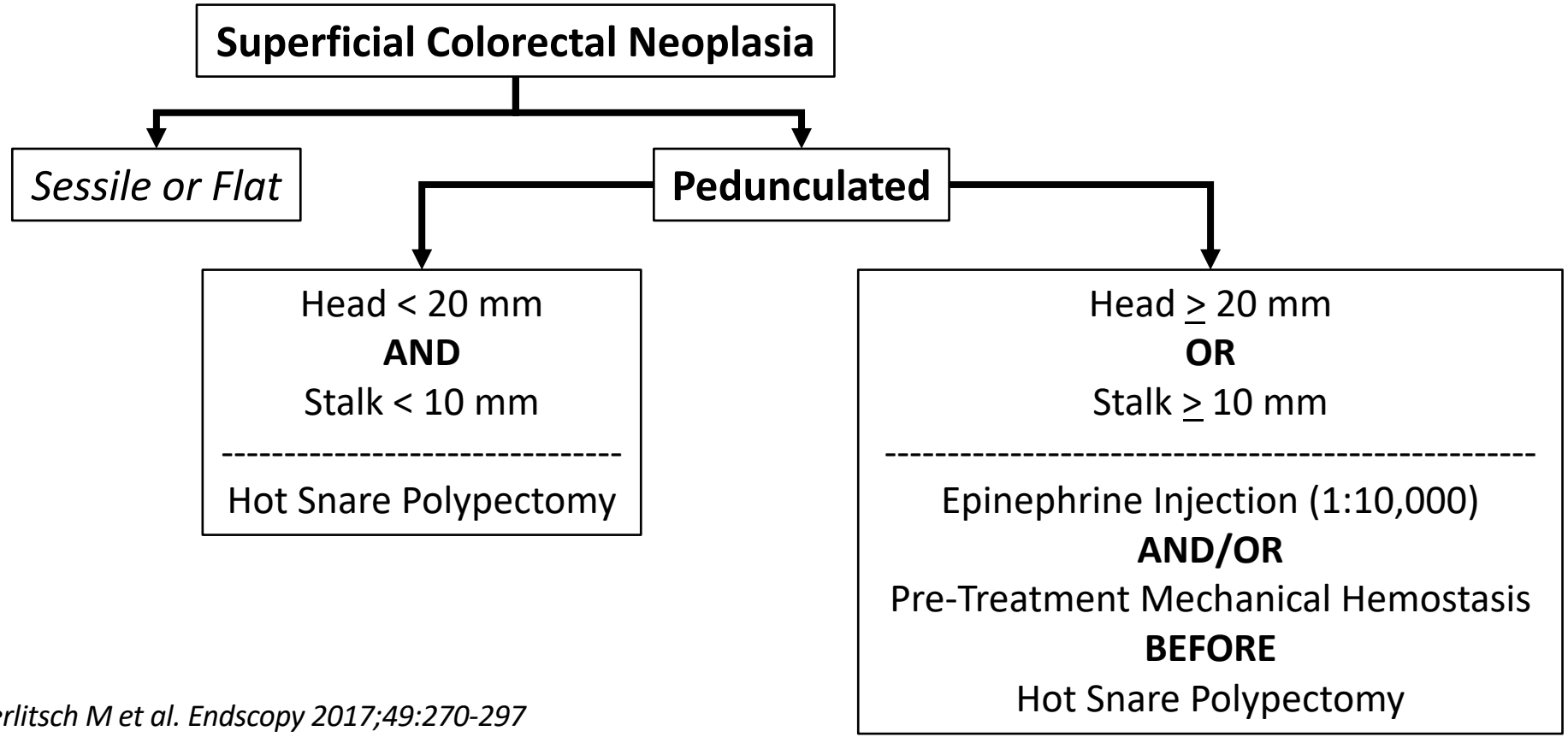
- May require multiple clips if the stalk is wide
- Closure may be incomplete
- Clips may interfere with later resection (during surveillance)

Advantages

- Easier than detachable snare placement

Boo S-J et al. Clin Endosc 2012;45:84-88

ESGE Guidelines



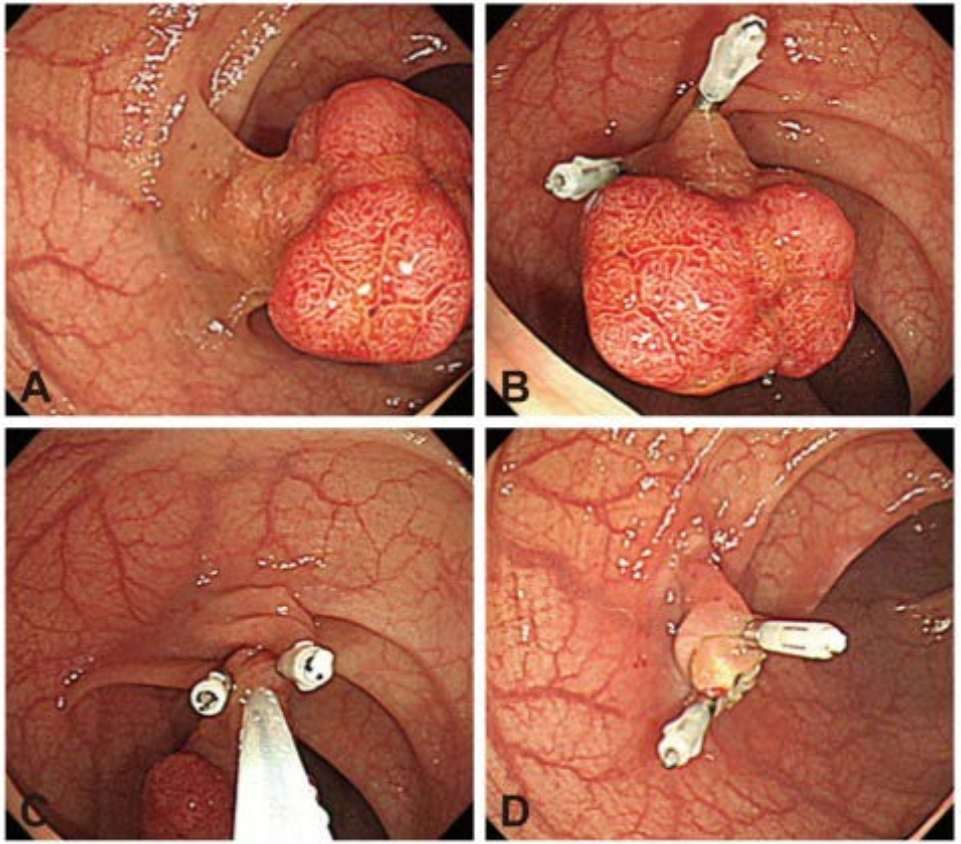
Ferlitsch M et al. Endscopy 2017;49:270-297

Considerations for Post-Polypectomy Bleeds

- Ongoing anticoagulation is required
- Prompt resumption of anticoagulation is required
- Underlying coagulopathy
  - Renal insufficiency
  - Chronic liver disease
  - Thrombocytopenia
- Difficult access to health care
  - Long distance travel (remote community; planned holiday)
  - Elderly, live alone

Case 3

- 65-year old man
- Positive FIT
- No family history
- Good general health
- No medications of allergies
- Descending colon polyp seen on entry – 20 mm diameter
- *Tubulovillous adenoma with no malignancy*
- *Curative polypectomy*
- *No post-procedural bleeding*



Boo S-J et al. Clin Endosc 2012;45:84-88

When to Refer – Surgery / Advanced Endoscopy

- No standardized criteria for referral
- Cancer risk increased if polyp > 20 mm
- Mega-polyps are associated with:
  - Greater technical difficulty: Snare positioning, piecemeal resection, head trimming
  - Greater risk of post-polypectomy bleeding
- Treatment challenges are greater if polyp > 30 mm
  - ESD has been used to dissect the polyp base

“Prevention is Better than Cure”

- Prepare everything before starting
  - Time, Electrosurgery pad, Polypectomy snares, Injection, Detachable snares / Hemostatic clips, Retrieval net
  - Patient comfort, cooperation, assistant skill, anticoagulation
- Inspect the polyp closely
  - Is the entire lesion visible?
  - If the stalk bleeds, where will the blood collect?
  - Is any part suspicious for malignancy?
  - Is the scope in a stable position?
  - Do I have the technical skills & equipment to remove the polyp?

SEE™ Endoscopic Polypectomy Improvement Course

SEE™ EPIC

EPICs Scheduled: January 25, 2020 (Ottawa), February 1, 2020 (McGill)

https://www.cag-acg.org/quality/see-program

Skills Enhancement for Endoscopy™

Canadian Association of Gastroenterology / L'Association Canadienne de Gastroentérologie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