

BC CRC Update

Malignant Polyp – Who Needs Surgery

Anthony MacLean, MD, FRCSC, FACS, FASCRS
Colorectal Surgeon
Foothills Medical Centre
Clinical Associate Professor of Surgery and Oncology
University of Calgary

Disclosures

- I have no disclosures

Objectives

- Who needs surgery?
- When is a more extended resection indicated?
 - Colectomy + ileorectal anastomosis
 - Proctocolectomy (+/- reconstruction)

First Things First

- As soon as you get path or referral
 - Make sure site tattooed
 - Make sure you're clear on morphology
 - Get Path review
- Then...

Decision Time!

Does This Patient Need Surgery?

- Likelihood of residual luminal cancer?
- Likelihood of positive nodes?
- Health of patient?
 - Morbidity of procedure
 - Functional outcome of patient
- Wishes of patient?
 - Risk tolerance

What is a Malignant Polyp?

- What it's not:
 - High grade dysplasia
 - Carcinoma in-situ
 - Intra-mucosal carcinoma
 - Serrated adenoma
- There must be invasion into submucosa!

What is a malignant polyp?

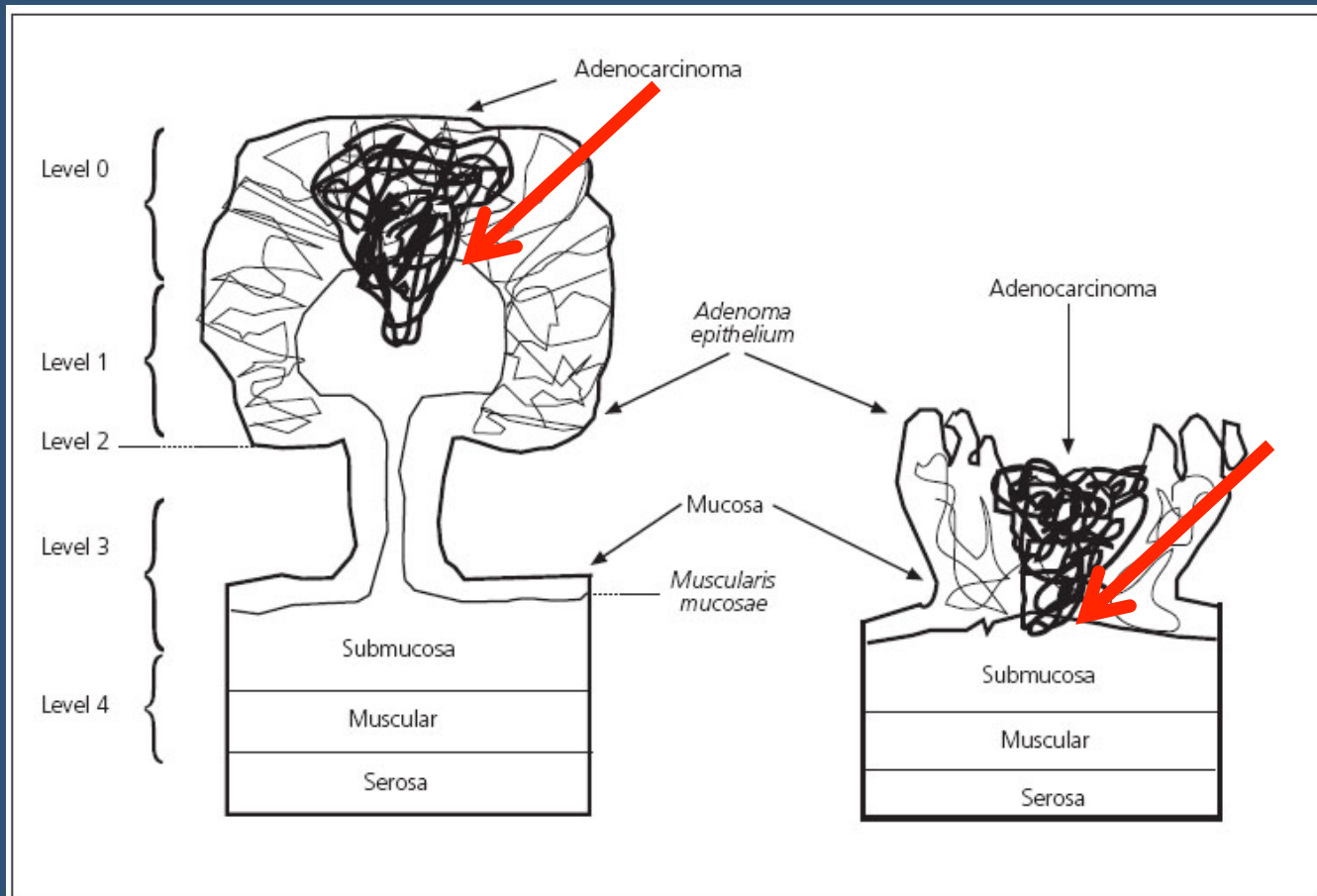


Fig. 1. Hagitt levels for tumor invasion (adapted from Haggitt R, et al. Gastroenterology 1985; 89: 328-36).

Endoluminal Risk?

- Positive margins: < 1 mm (or 2mm)
 - Considered an indication for surgery.
 - If margin unclear or < 1mm, risk of luminal cancer 11%

Butte et.al. Dis Colon Rectum. 2012;55: 122-7

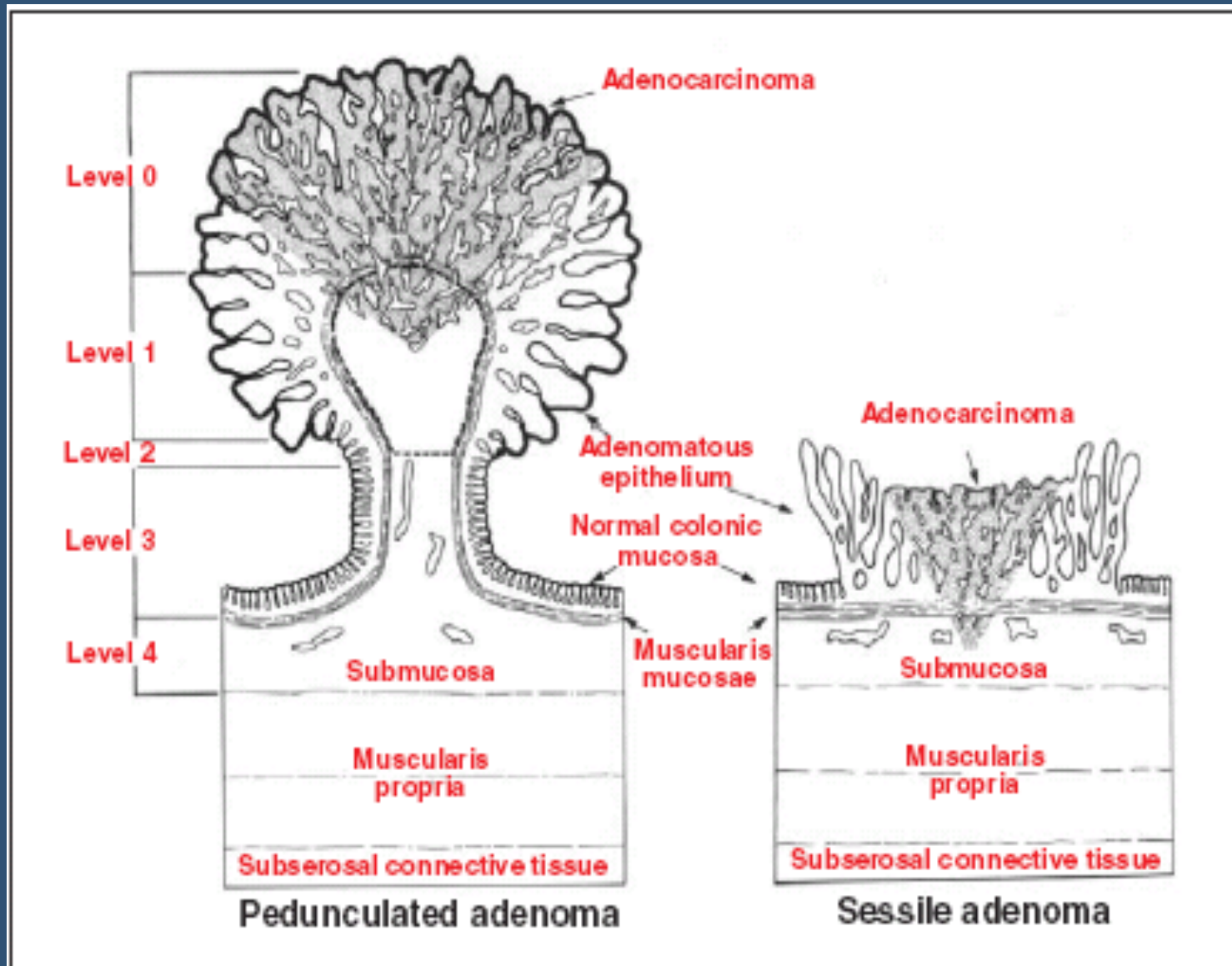
- Piecemeal resection
 - Risk of endoluminal recurrence if no surgery?

Risk of positive lymph nodes in T1?

What matters?

- ?Polyp Configuration: Pedunculated vs. Sessile
- ?Haggitt Classification
 - Depth of invasion (sm1, sm2, sm3)
- Lymphovascular invasion
- Grade
- Tumor Budding

Haggitt Classification



Risk of + LN's according to Haggitt Level

Haggitt RC. Gastroenterology. 1985

- Haggitt Level 1
 - Haggitt Level 2
 - Haggitt Level 3
 - Haggitt Level 4* (3% - 25% depending on other features including Sm depth of invasion)
- < 1% risk of +LN's**

* All sessile polyps are Haggitt level 4.

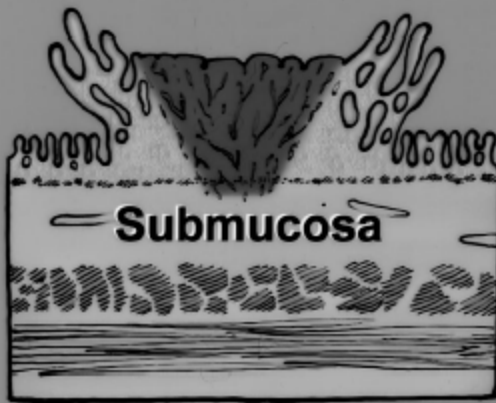
* Sm Level can be applied to Haggitt level 4 polyps both pedunculated and sessile

Haggitt's level

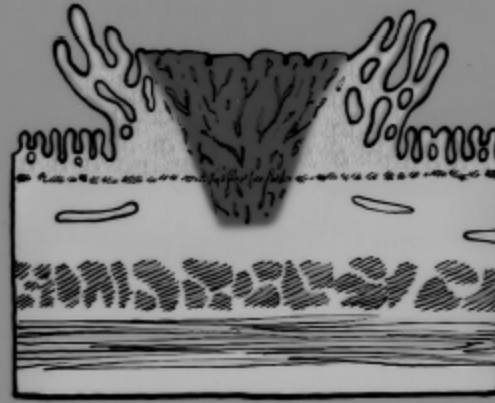
- Forget about it
- What do you need to know?
 - Pedunculated vs sessile?
 - Is margin of excision clearly negative?
 - Other high risk features?
- What about sessile lesions?

Sm Level

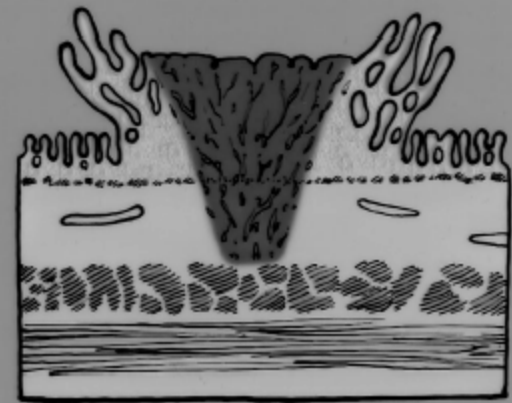
Nascembeni R et al. DCR 2002



Sm1



Sm2



Sm3

Risk of + LN's according to Sm Level

- Sm1: 0-3%
- Sm2: 8-10%
- Sm3: 23-25%

Other Risks for LN Mets

	# tumors	Nodal Involvement	Odds ratio	P value
Tumor Grade				
Favorable	176	5.7%		
Unfavorable	75	29.2%	2.9	0.023
Vascular Invasion				
Absent	176	5.7%		
Present	75	30.7%	2.7	0.039
Cribriform pattern				
Absent	192	7.3%		
Present	59	32.2%	3.9	0.002
Tumor budding				
Negative	213	8.0%		
Positive	38	42.1%	3.7	0.008

Meta-analysis of features that predict LN metastases

- EMBASE and OVID Medline 1984 – 2008
- 76 articles met inclusion criteria and exclusion criteria
 - 42 different histopathological features identified.
 - 15 were described in more than 2 studies.
- LVI OR 8.62, differentiation 2.38.
- No single risk factor reliably predicts LN mets.

Outcomes of Malignant Polyps treated Endoscopically

Author	Year	Favourable Polyps with Adverse Outcomes	Unfavourable Polyps with Adverse Outcomes
Cooper	1995	0/46	14/71 (19.7%)
Volk	1995	0/16	10/30 (33%)
Hackelsberger	1995	0/42	7/34 (21%)
Netzer	1998	0/32	16/38 (42%)
Seitz	2004	0/54	14/52 (27%)
Overall		0/190	61/225 (27%)

Population-Based Analysis

- SEER database in United States
- 2077 patients with T1 N0 1992 – 2005
- Resection in 1340 (64.5%) vs. polypectomy 737 (35.5%)
- Adjusted for comorbidity using propensity scores
- **No different between surgery vs. polypectomy 1 and 5 year survival**

Why do you need path review?

- As with most things – expertise matters.

Pathology Concerns

- 2 expert GI pathologists in France reviewed 200 colorectal polyps initially examined in the community
 - HGD was over read in 22% of cases
 - Malignant polyps were over read in 17%
 - Malignant Missed in 4/300
 - Complete reports in 37.5% (margins, LVI, differentiation).

Pathology Concerns

- 3 experienced GI pathologists re-reviewed the slides of 88 pts with malignant polyps.
 - 12/88 pts were found to have only HGD
 - Agreement even between experienced pathologists was poor with respect to histologic grade and LVI

Summary

- Polypectomy is adequate treatment for:
 - High grade dysplasia – even with positive margins
 - “carcinoma in situ”
 - “intramucosal carcinoma”
 - Low risk Malignant polyps
- Higher risk T1 lesions that should be considered for resection include the following features:
 - Positive Margins
 - LVI
 - Poorly differentiated
 - Sm 3, maybe Sm2 for sessile and Haggitt level 4

Indications for Extended Resections

- Underlying disease
 - IBD
- Proven or likely Genetic disorder
 - HNPCC
 - FAP
 - MYH , other
- Synchronous tumors
 - Ex. Ascending + distal transverse
- Serrated polyposis / hyperplastic polyposis

Thanks!