What about tumor budding?

- Detachment of single tumour cells or in small aggregates (< 5 cells)
- High grade budding (10 buds in a X25 power field) is an adverse prognostic marker

Mod Pathol 2012;25:1315-25















A Big Diagnostic Problem

Is this cancer in the submucosa or is it the benign phenomenon of epithelial misplacement?



Epithelial misplacement



Epithelial misplacement in adenoma





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Misplaced Epithelium in Colonic Polyps

(PSEUDOINVASION)

- Large pedunculated adenomas
- Typically found in sigmoid colonic polyps
- Misplaced epithelium is similar to nondisplaced epithelium (degree of dysplasia)
- Lamina propria is retained in displacement
- Mucin pools present
- Hemosiderin may be present



Misplaced Epithelium

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Misplaced Epithelium

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Misplaced Epithelium



Serrated colon polyps

- Hyperplastic polyp
- Sessile serrated adenoma/polyp
- Traditional serrated adenoma
- Sessile serrated adenoma with dysplasia
- Mixed polyp



Hyperplastic Polyps 2 commonest types



microvesicular

goblet cell





Sessile serrated adenoma/polyp

- Cytologic dysplasia is absent (in most cases)
- Irregular dilated crypts
- Serrations present at the base of crypts
- Proliferative zone extends half way up crypts
- Proliferation of crypts along the muscularis mucosae
- SSAs are often large (>10mm) and right sided, but these features do not form part of the diagnostic criteria



What do we know about sessile serrated adenoma/polyp

 Sessile serrated polyps/adenomas are associated with synchronous advanced colorectal neoplasia

Schreiner MA, Weiss DG, Lieberman DA. Gastroenterology 2010; 139: 1497-502.

 Sessile serrated 'adenomas' strongly predispose to synchronous serrated polyps in non-syndromic patients

Pai RK, Hart J, Noffsinger AE. Histopathology 2010 ; 56: 581-8.

 Sessile serrated polyps progress to carcinoma more slowly than conventional adenomas (10 -15 years)

Lash RH, Genta RM, Schuler CM. J Clin Pathol 2010; 63: 681-6

 Where endoscopists are mandated to detect and remove all polyp lesions, these are very common and cause diagnostic and management issues......



Sessile Serrated Adenoma/Polyp





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Sessile Serrated Adenoma/Polyp





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Sessile Serrated Adenoma Polyp



Sessile Serrated Adenoma Polyp

Sessile Serrated Adenoma

Sessile Serrated Adenoma

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Sessile Serrated Adenoma/Polyp



Sessile Serrated Adenoma/Polyp



- Traditional serrated adenomas are adenomas that have a serrated morphology
- Typically only low-grade dysplasia is present



CAN'S MARKE















Sessile serrated adenoma



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3	BC Cancer Agency
	CARE + RESEARCH

e

Colon Screening Program

Colonoscopy Reporting Form

INSTRUCTIONS: File in chart | Fax copy to Colon Screening Program (fax: 604-660-3645) | If specimens taken, send copy with specimen container

PATIENT NAME PROCEDURE DATE (dd/mm/yy) COLONOSCOPIST				DATE OF BIRTH PROCEDURE START TIME				PHN	PHN		
								No Show for Colonoscopy:			
				MS	MSC#				Withdrawal time:		
Cecal In No I Yes – Bowel P Excelle Fair (a Poor (Specime	tubation □ Uncertai → Photo of reparatio ent □ 0 dequate to inadequate ons Taken	n documenta n Good o visualize a e to visualiz : □ No	tion? Il polyps e all poly Ves	No >5mm ps >5n	□ Yes) nm)		planned Eve None Perforation Sleeding Cardiovascular Medically unfi Dther (specify ncomplete F	nts Rev Adn Res Dea t on day of p : Procedure: 1	ersal agents nit to hospit piratory th rocedure	al	od
	Specimen Type	Location	< 5	ize (mn 5-9	n) ≥10	Morphology	Primary Removal Mode	Piecemeal (Y/N)	Complete Removal (Y/N/LI)	Complete Retrieval	# pieces sent
Example	Р	Т		1		P	HS	Y	Y	Y	3
A											
В											
С											
D											
Е											
F											
Specimen Type P = polypectomy Bx = biopsies Y = yes N = po		Location Morpholo C = cecum P = pedunc A = ascending colon S = sessile T = transverse colon F = flat S = sigmoid M = mass D = descending O = other			POY culated	Removal Mode BF = biopsy forceps HBF = hot biopsy forceps HS = hot snare CS = cold snare		(name of person completing form)			
U = uncertain R = rectur		m						(signature)			
FOR PAT	THOLOGY TO: creening P	LAB: Nun	nb <mark>er of s</mark>	ample	s receive	d at lab:		Signed: _			23
Fax: 604-660-3645 Patient (ent Coo	t Coordinator GP (name			& MSC#)	Other (name & MSC#)		
COLON SC 801- 686 \	REENING PI West Broady	ROGRAM vay Vancou	Jver, BC	V5Z 1G	1 2 1-	877-70-COLO	N <u>www.scree</u>	ningbc.ca	Pag	ge 1 of 1 RSION: 02MA	Y2013



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Specimen pathology report

- Patient identifiers: Name, PHN #, etc
- Specimen received: Location of polyp
- Gross description:
- Diagnosis:
 - a) Tubular/tubulovillous/villous adenoma/etc
 - b) Highest grade of dysplasia present
 - c) Maximum diameter of polyp (or not applicable)
 - d) Completeness of excision yes/no/CBA (only for polyps with highgrade dysplasia or cancer)
- Comments by pathologist



Colonoscopy surveillance after polypectomy

Gastroenterology 2012;143:844-857

Following a negative (no adenomas) colonoscopy:

- Average risk participants with positive FIT but a negative colonoscopy will re-enter FIT screening in the 10th year following colonoscopy
- Participants with 1 first degree relative with CRC diagnosed at ≤ 60 years or > 2 first degree relatives with CRC will have a repeat colonoscopy in 5 years
- Adenoma identified at last prior screening episode, repeat colonoscopy in five years.

Following a colonoscopy with removal of an adenoma:

- Repeat colonoscopy in 5 years for a low risk adenoma
- Repeat colonoscopy in 3 years for a high risk adenoma or > 3 low risk adenomas









A high risk adenoma includes the following:

- High grade dysplasia
- Villous features
- Size > 10 mm
- Sessile serrated polyp/adenoma > 10 mm in size
- Sessile serrated polyp/adenoma of any size with dysplasia
- Traditional serrated
 adenoma of any size



Vancouver General Hospital - Anatomical Pathology/GI Group

Version 4.1/dfs

'TA' Tubular adenoma with LGD

Colon (site), biopsy: Tubular adenoma, low-grade dysplasia: -Maximum size: xx cm (gross description)

'TV' Tubulovillous/ Villous adenoma with LGD Colon (site), biopsy: Tubulovillous / Villous adenoma, low-grade dysplasia: -Maximum size: xx cm (gross description)



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'TAINC' Invasive carcinoma arising within a polyp

Colon (site), biopsy:

Invasive, low-grade, colonic adenocarcinoma arising within a tubular/villous adenoma:

- 1. Negative/Positive for poor tumor differentiation.
- 2. Negative/Positive for high-grade tumor budding.
- 3. Negative/Positive for lympho-vascular invasion.
- 4. Tumor is xx cm away from the cauterized resection margin.
- Completeness of excision can not be assessed.
 OR polyp is completely excised.





