

**VEQ ANATOMIA PATOLOGICA CICLO 2024:
PRESENTAZIONE E COMMENTO DEI RISULTATI DEI
PARTECIPANTI**

Firenze 16 Dicembre 2024
AOU Careggi NIC 3, Aula Magna

**Commenti sulla definizione di
“displasia” nel colon retto e
stadiazione dell’ adenocarcinoma**

Luca Messerini



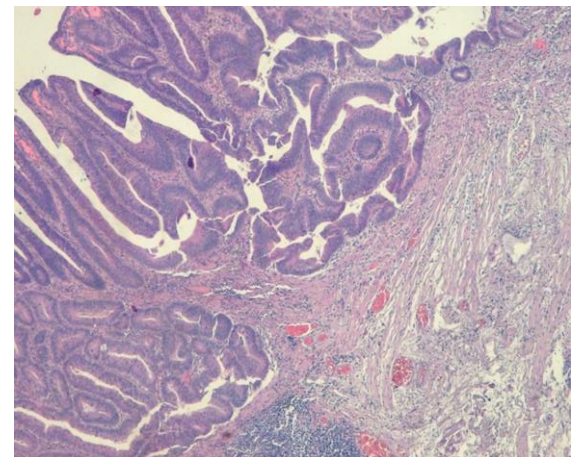
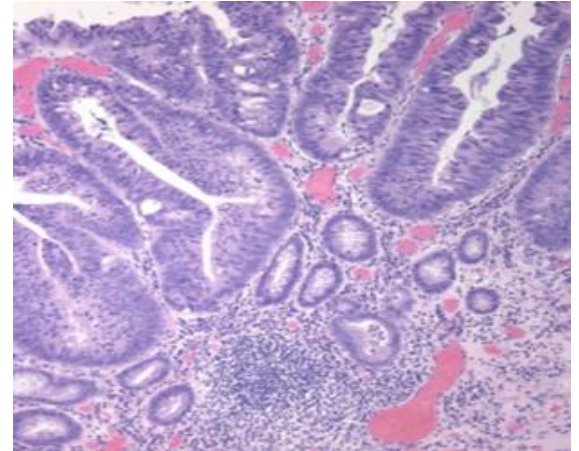
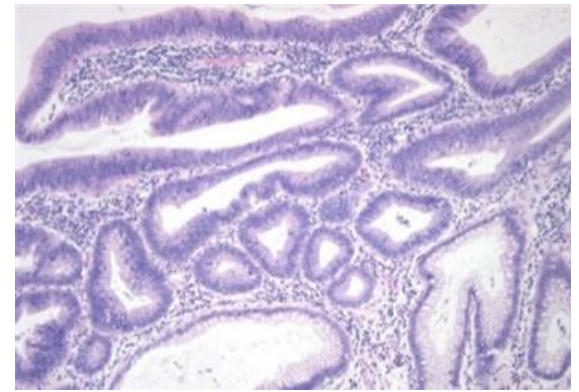
Displasia

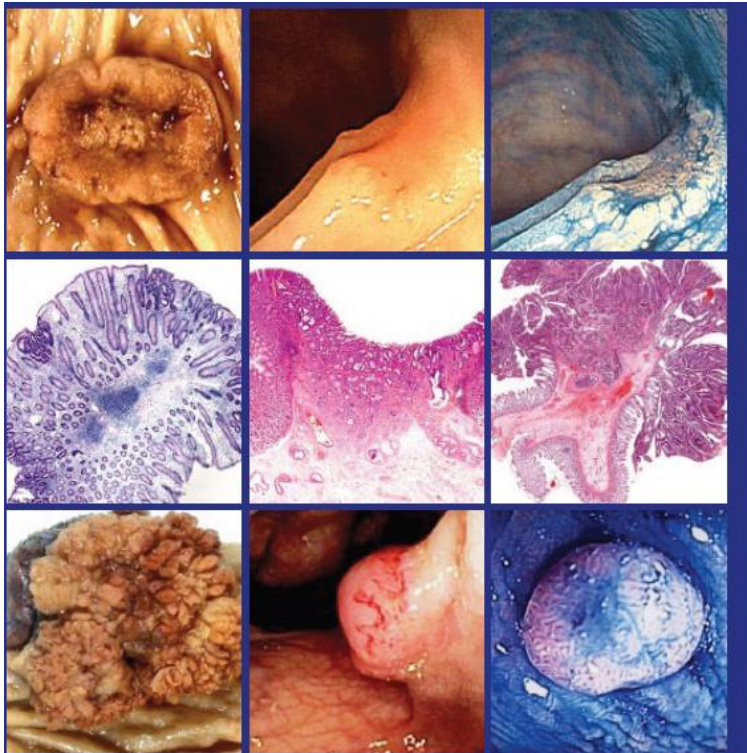


Alterazioni cito-architetturali dell'epitelio
inequivocabilmente neoplastiche
ma senza documentabile invasione.



Neoplasia non invasiva
Neoplasia intrapiteliale





European guidelines for quality assurance in colorectal cancer screening and diagnosis *First Edition*



European Commission

1. NO NEOPLASIA:²

Vienna Category 1 (Negative for neoplasia)

2. MUCOSAL LOW GRADE NEOPLASIA:

Vienna Category 3 (Mucosal low-grade neoplasia

Low-grade adenoma

Low-grade dysplasia);

Other common terminology

mild and moderate dysplasia;

WHO: low-grade intra-epithelial neoplasia

3. MUCOSAL HIGH GRADE NEOPLASIA:

Vienna: Category 4.1–4.4 (Mucosal high grade neoplasia

High-grade adenoma/dysplasia

Non-invasive carcinoma (carcinoma *in situ*)

Suspicious for invasive carcinoma

Intramucosal carcinoma);

Other common terminology

severe dysplasia;

high-grade intraepithelial neoplasia;

WHO: high-grade intraepithelial neoplasia

TNM: pTis

4. CARCINOMA invading the submucosa or beyond:

4a. Carcinoma confined to submucosa

Vienna: Category 5 (Submucosal invasion by carcinoma);

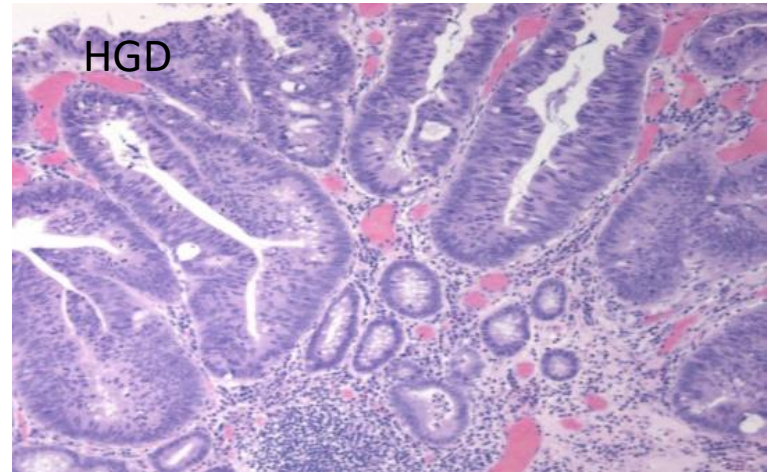
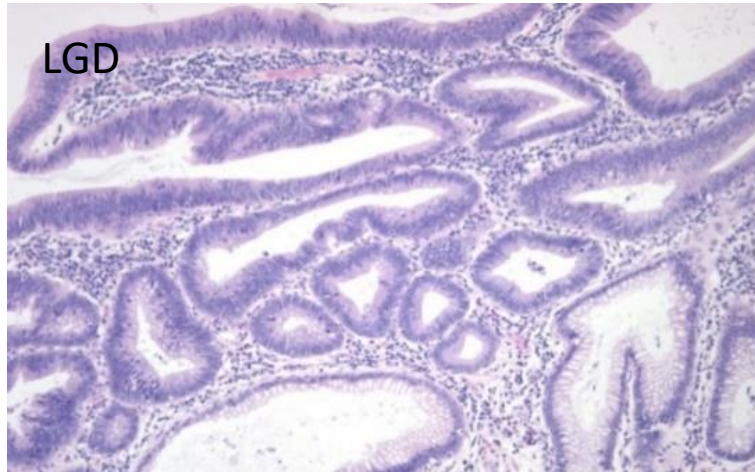
TNM: pT1

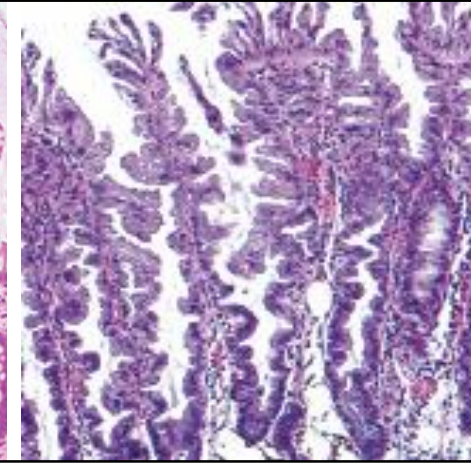
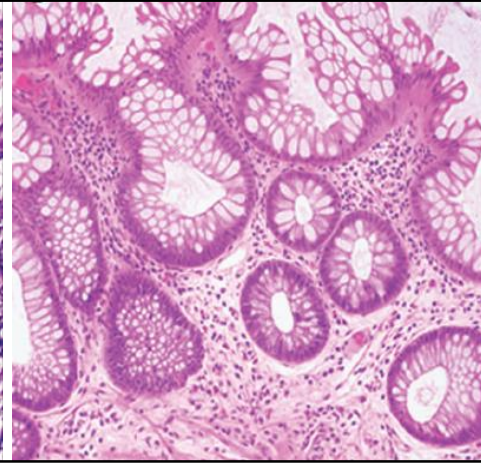
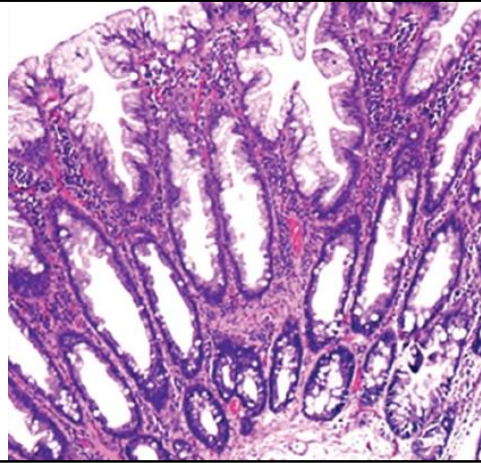
4b. Carcinoma beyond submucosa

TNM: pT2-T4

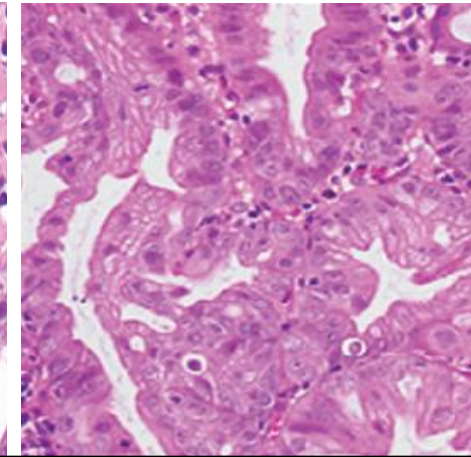
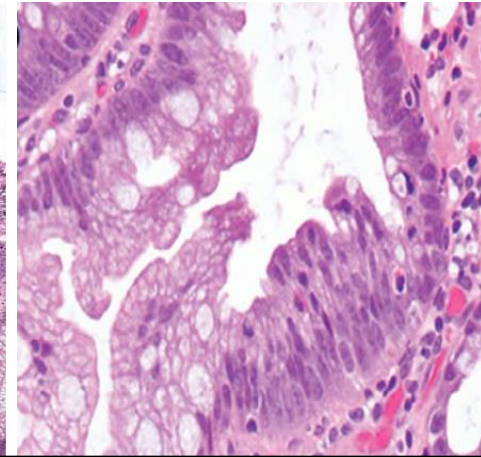
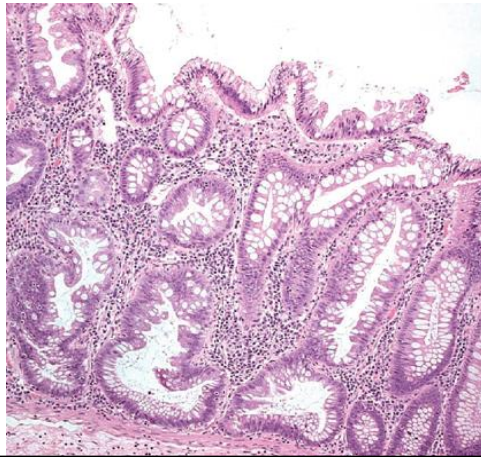
Grading of adenomas

For dysplasia grading of conventional adenomas we used a two-tiered stratification into low-grade and high-grade, although there is a high level of interobserver variability. WHO 2019

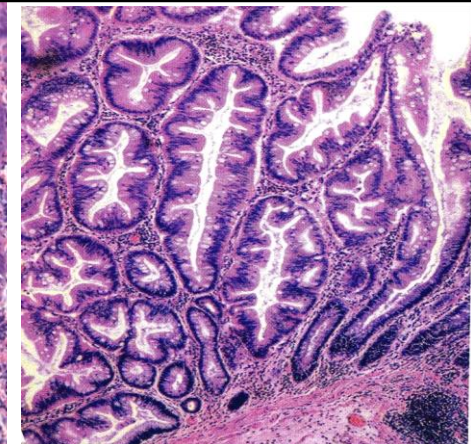
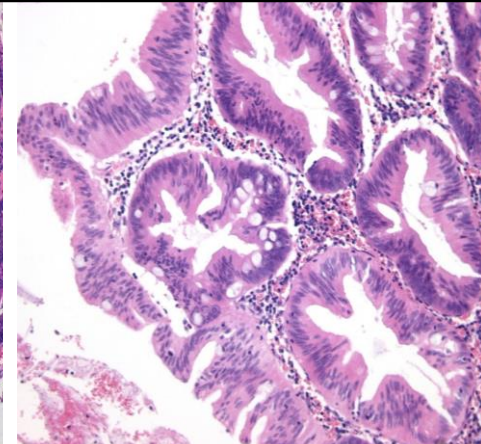
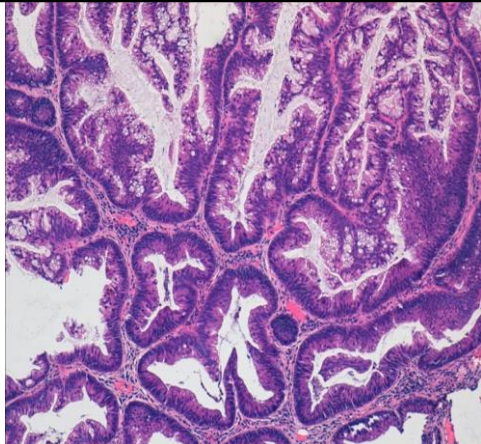




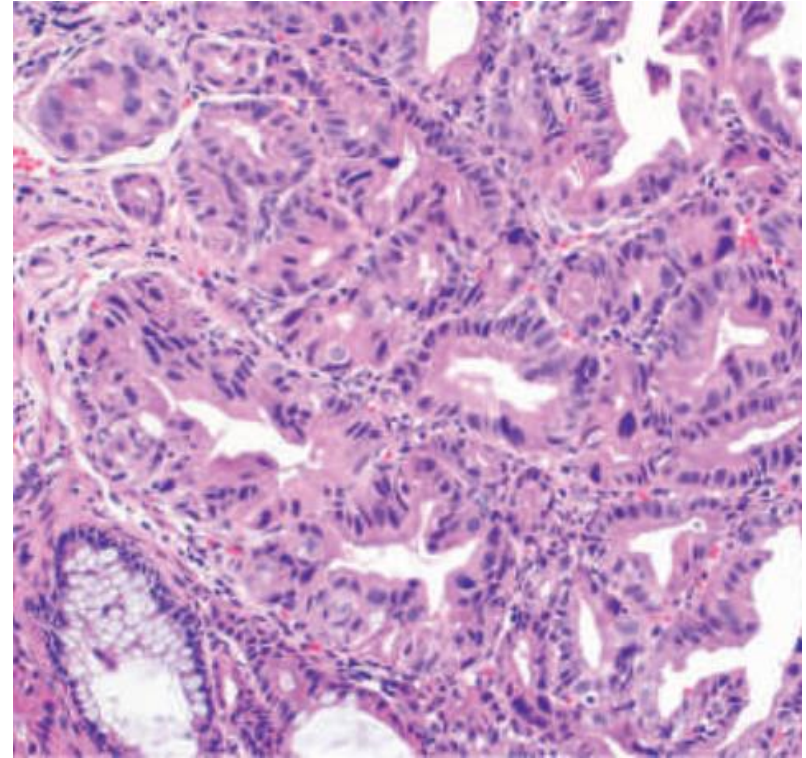
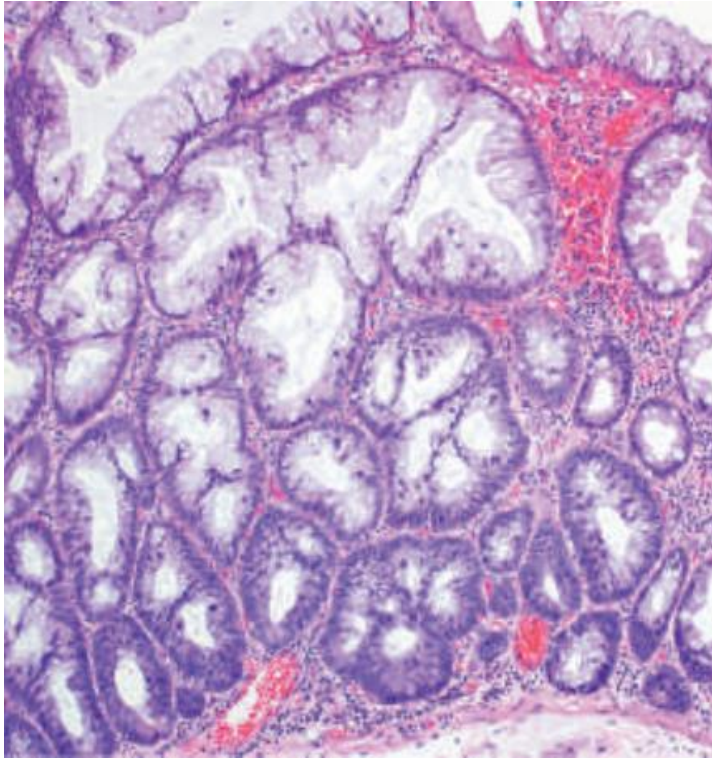
Polipo iperplastico
architettura serrata
displasia: no



Lesione serrata
sessile
displasia: possibile
-intestinale
-serrata



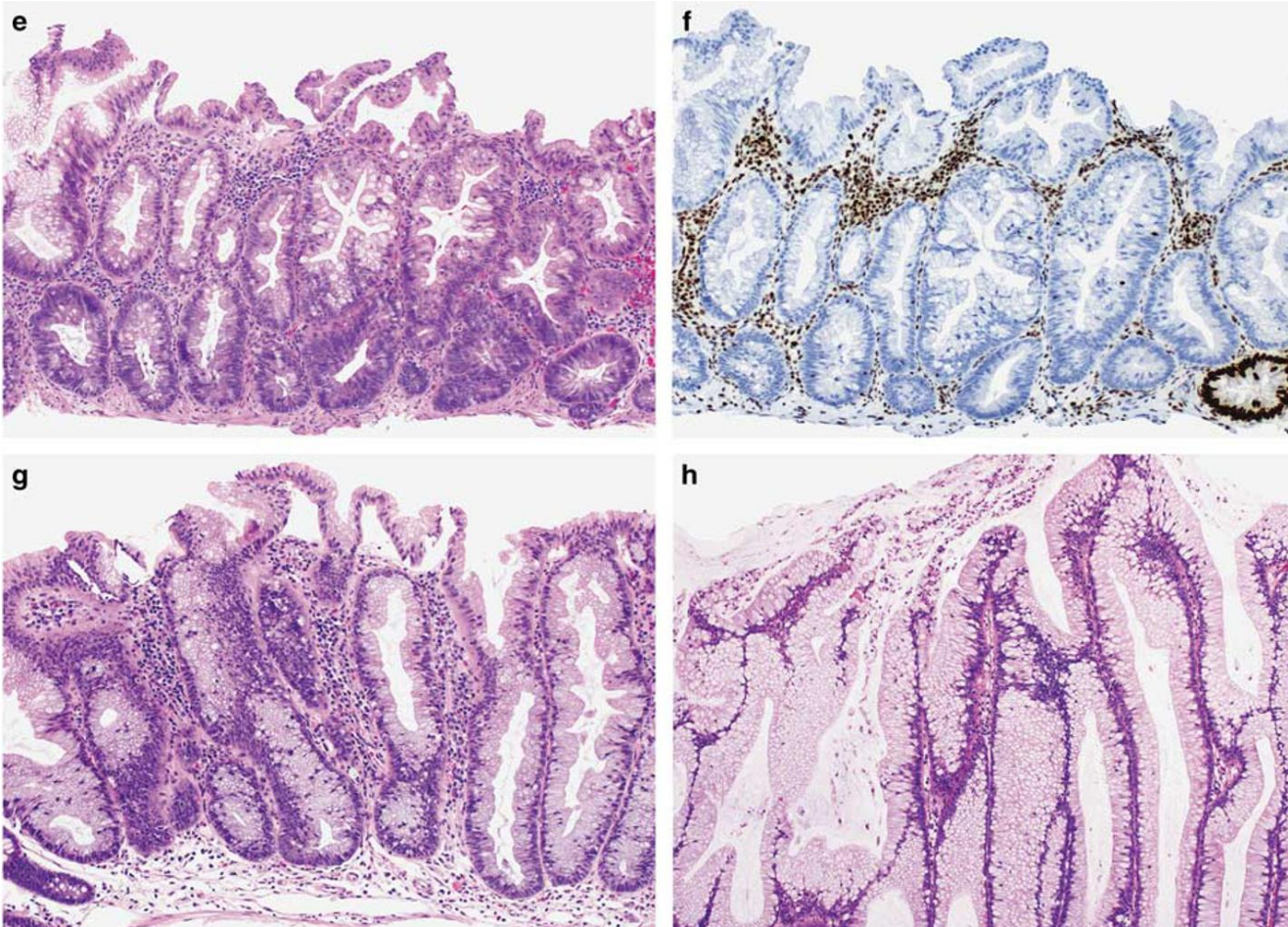
Adenoma serrato
tradizionale
displasia:
sempre presente



Stratification of dysplasia into low-grade vs. high-grade **is not recommended** (WHO 2019)

Two general types occur: serrated dysplasia and intestinal-type dysplasia. However, until more follow-up and natural history data are obtained, **it is not necessary to grade or morphologically subclassify the type of dysplasia for clinical purposes (Odze R 2023)**

Minimal deviation dysplasia



Mild crowding of crypts separated by less lamina propria and showing some degree of disorganization. The cells are hypermucinous with some crowding of nuclei.

MLH1 loss of expression

Inflammatory bowel-disease associated dysplasia

Unequivocal neoplastic alteration of the intestinal epithelium that remains confined within the basement membrane in which it originated

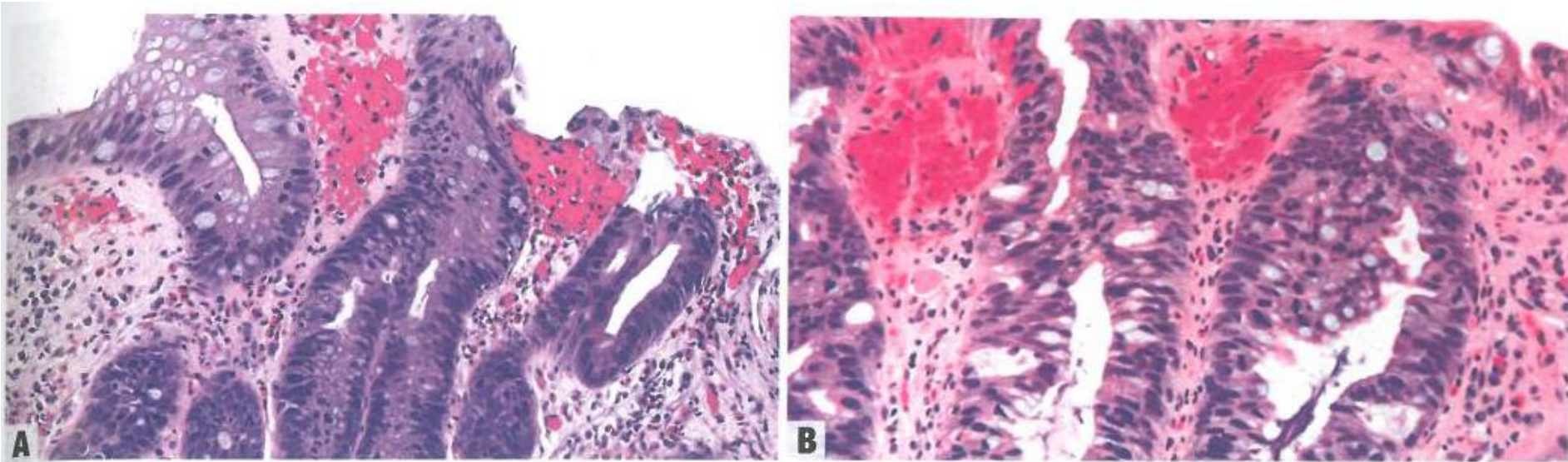


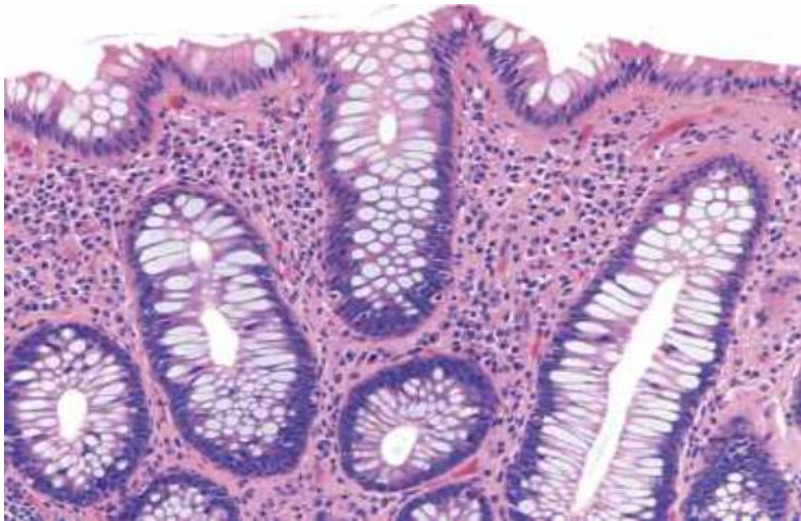
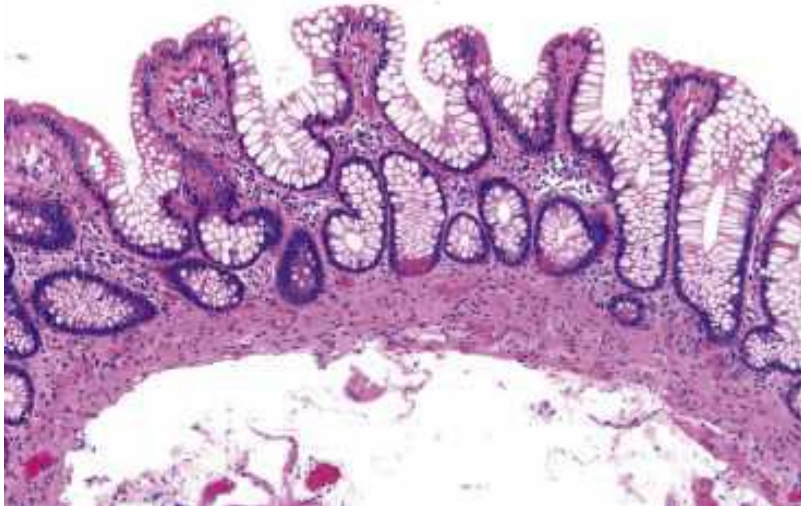
Fig. 6.20 Dysplasia, intestinal type. **A** Low-grade dysplasia. Slender, hyperchromatic, crowded nuclei are aligned along the cell bases and extend to the epithelial surface; goblet cells are sparse and their mucin vacuoles are frequently small. **B** High-grade dysplasia. Hyperchromatic, pleomorphic nuclei are stratified haphazardly within the cytoplasm.

Dysplasia in inflammatory bowel disease: standardized classification with provisional clinical applications

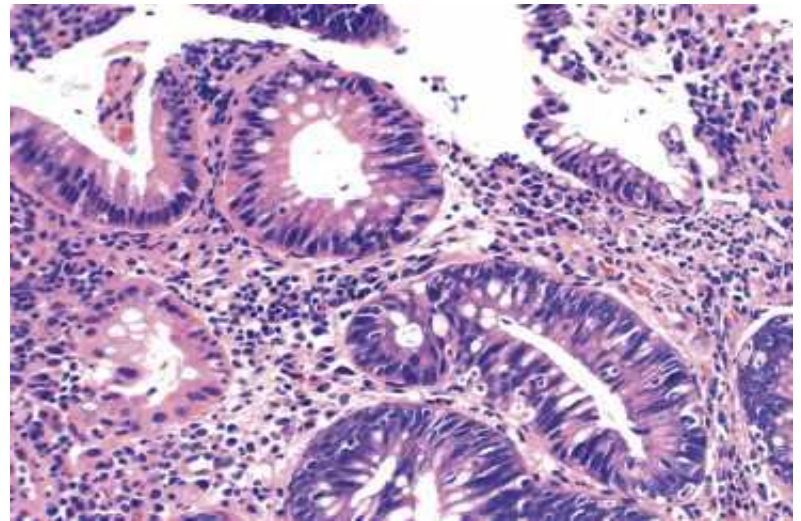
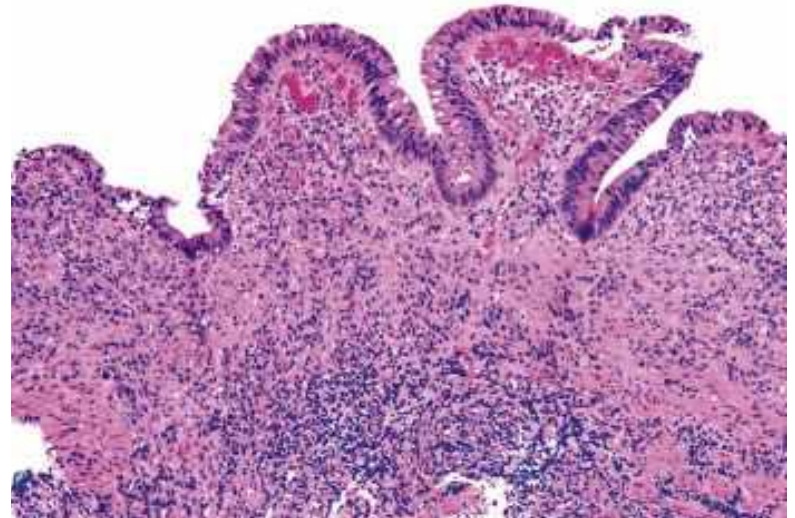
R H Riddell, H Goldman, D F Ransohoff, H D Appelman, C M Fenoglio, R C Haggitt, C Ahren, P Correa, S R Hamilton, B C Morson, et al.

- **Negative for dysplasia**
- **Indefinite for dysplasia**
- **Low grade dysplasia**
- **High grade dysplasia**

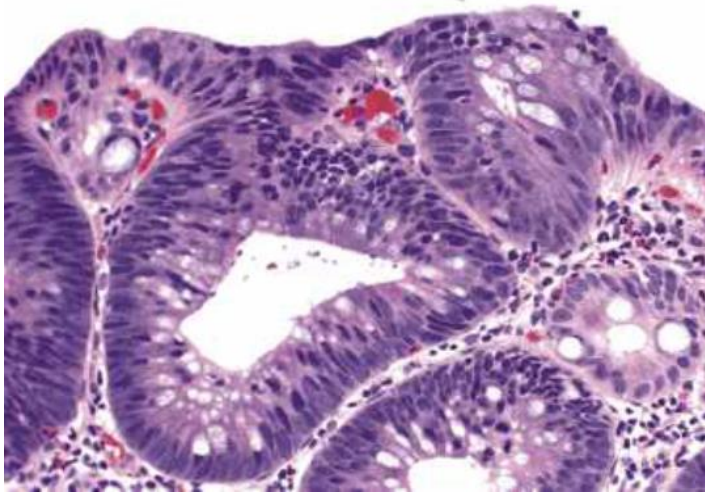
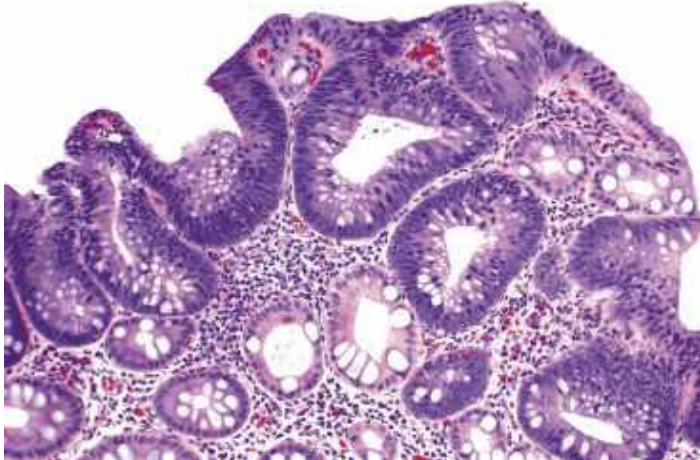
Negative for dysplasia



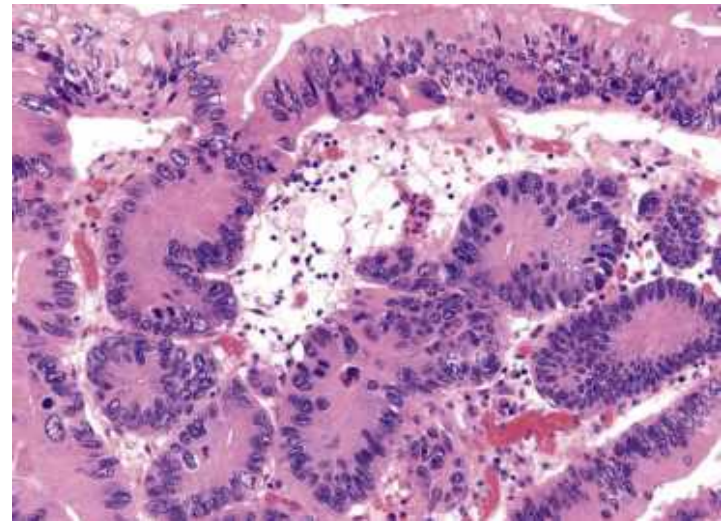
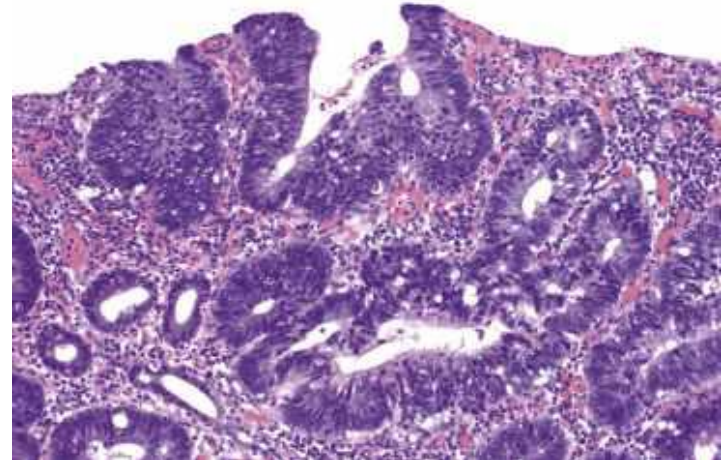
Indefinite for dysplasia



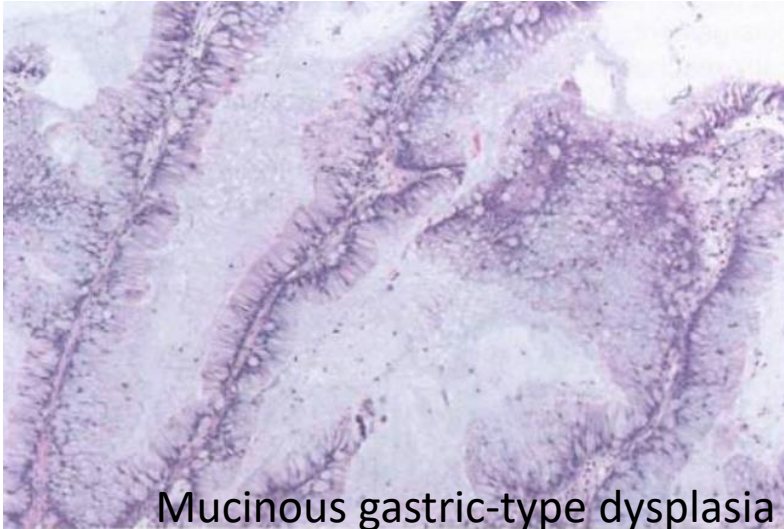
Low grade dysplasia



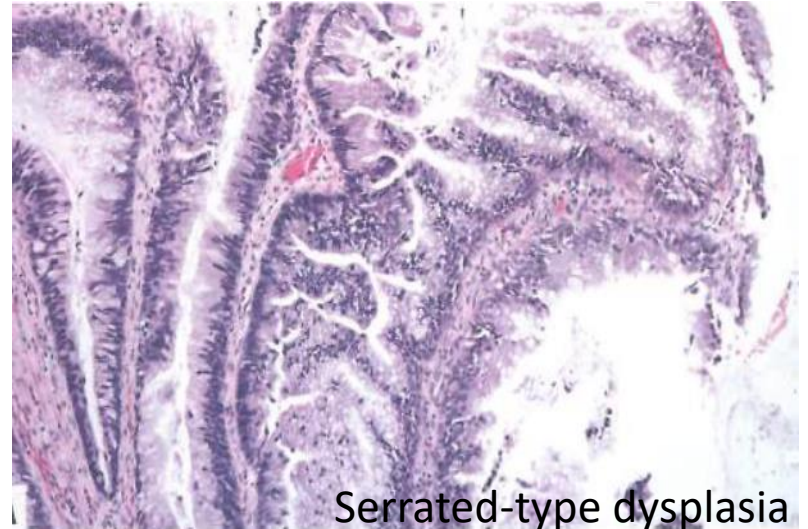
High grade dysplasia



The most common morphological subtypes of dysplasia in IBD include the intestinal (adenomatous) and serrated types (WHO 2019)



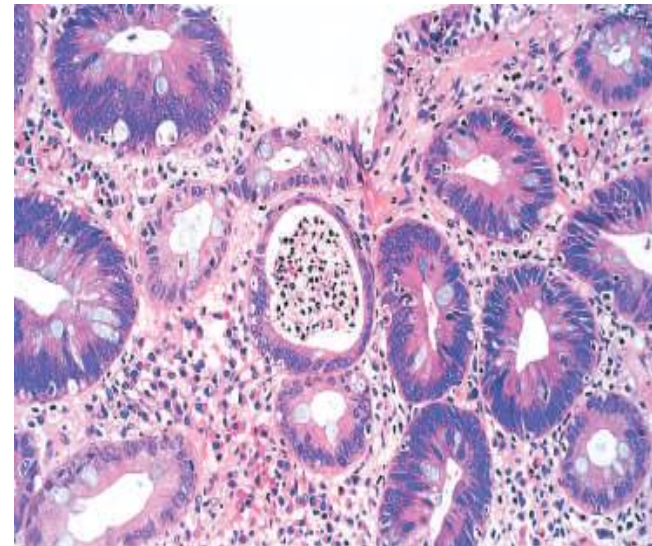
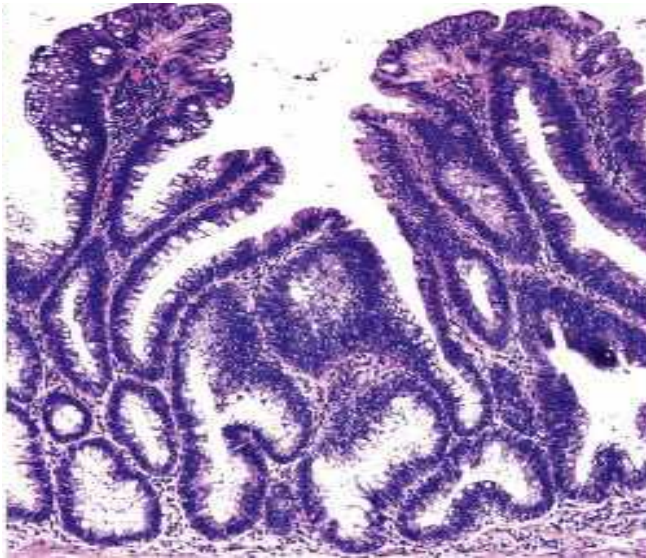
Mucinous gastric-type dysplasia



Serrated-type dysplasia

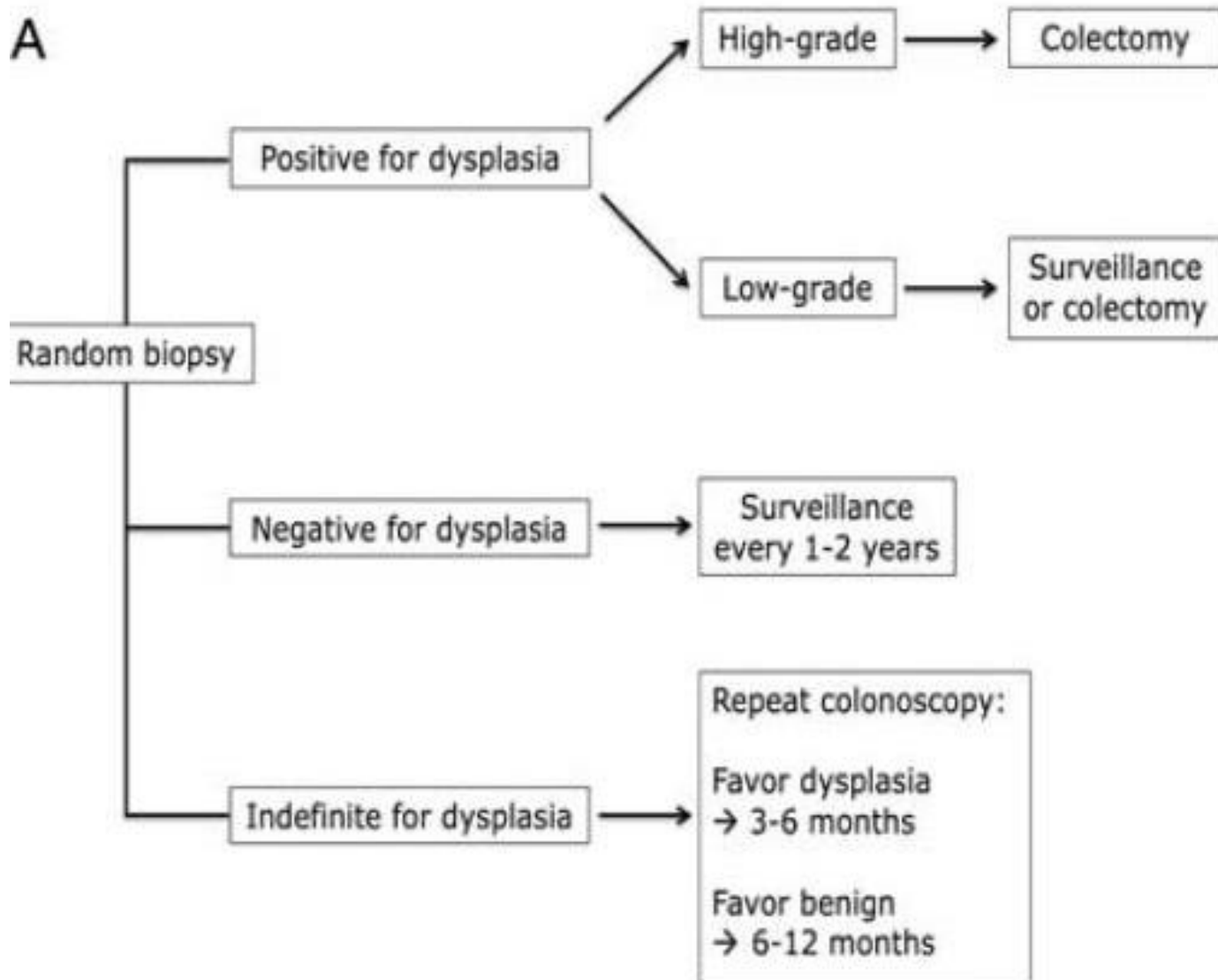
PATTERNS OF NON-CONVENTIONAL DYSPLASIA

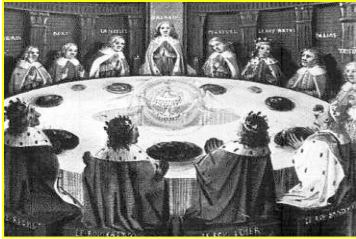
- Hypermucinous
- Goblet cell deficient (or eosinophilic)
- Dysplasia with increased Paneth cell differentiation
- Crypt cell (or terminal epithelial differentiation)
- Traditional serrated adenoma-like
- Sessile serrated adenoma-like
- Serrated-NOS



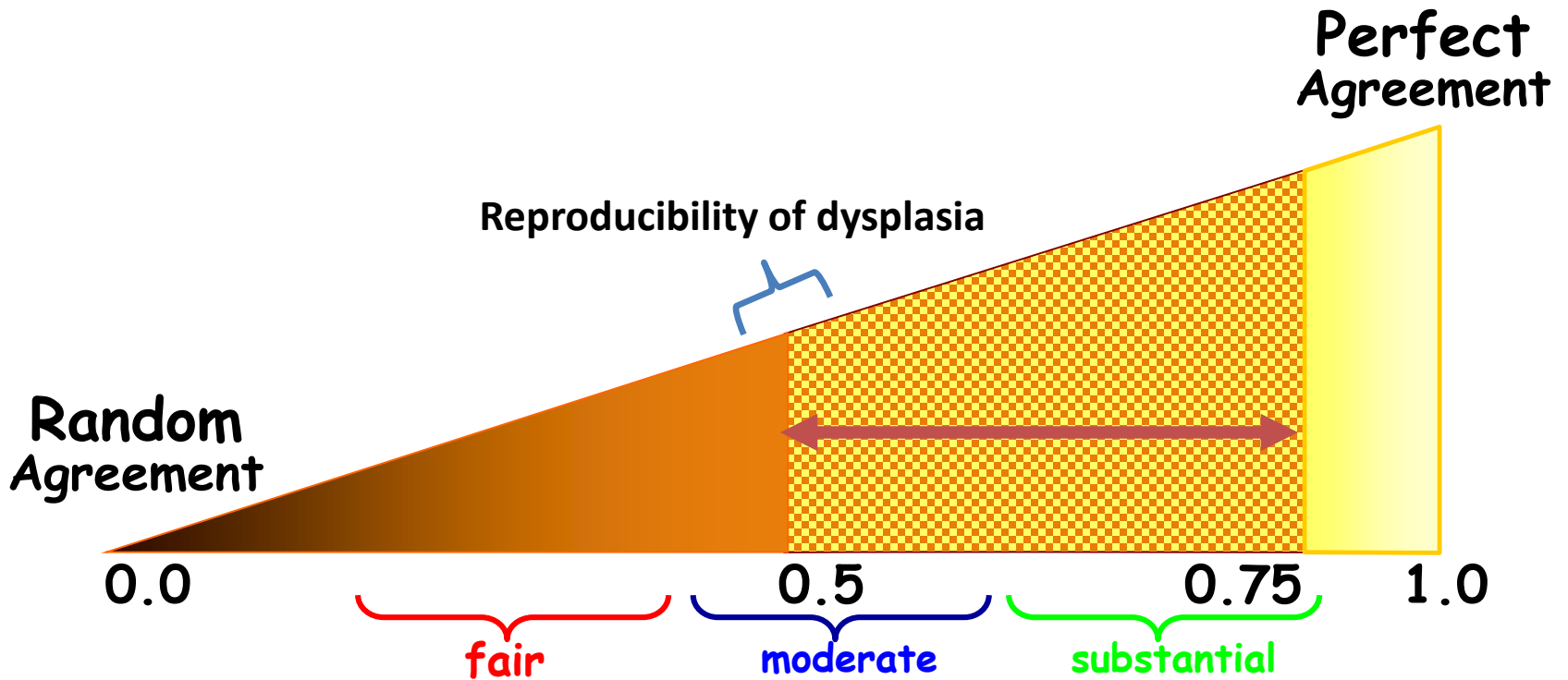
Features	Sporadic adenoma	IBD visible dysplasia
Non-dysplastic and dysplastic crypts	usually absent	usually present
Top down dysplasia	usually present	usually absent
Bottom up dysplasia	usually absent	usually present
P53+	usually absent	usually present
β -catenin+ (nuclear)	usually prominent	usually absent

A





BENCHMARKS for *K* statistics



Stadiazione del carcinoma del colon-retto AJCC 2019 (TNM)

TX	Tumore primitivo non valutabile	NX	non valutabili
T0	Tumore primitivo non evidente	N0	assenza di metastasi
Tis	Carcinoma in situ (intraepiteliale o intramucoso)	N1 N1a N1b N1c	1-3 linfonodi regionali 1 linfonodo regionale 2-3 linfonodi regionali depositi tumorali in N0 (sottosierosa, mesentere, mesoretto)
T1	Tumore che infiltra la sottomucosa	N2 N2a N2b	≥ 4 linfonodi regionali 5-6 linfonodi regionali ≥ 7 linfonodi regionali
T2	Tumore che infiltra la muscolare propria	M0	metastasi assenti (categoria clinica)
T3	Tumore che supera la muscolare propria e infiltra la sottosierosa o i tessuti pericolici o perirettali non rivestiti da sierosa	M1 M1a M1b M1c	≥ 1organi distanti o peritoneo 1 organo distante ≥ 1 organo distante peritoneo con o senza coinvolgimento di organi distanti
T4a	Tumore che invade e perfora il peritoneo viscerale		
T4b	Tumore invade direttamente organi adiacenti		

STADIO: I T1-T2 N0M0, II T3-T4 N0 M0, III N+ o N1c, IV M+

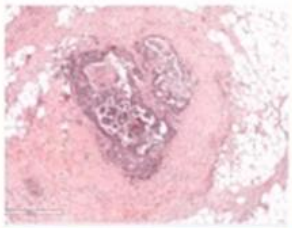
Nodule located in the mesocolon or mesorectum without histological evidence of residual lymph node tissue

Size

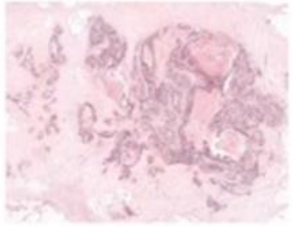
Shape

No vascular or perineural invasion

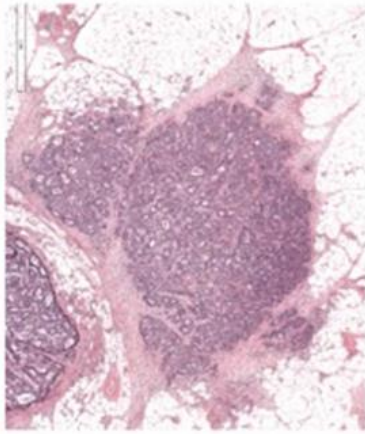
If <3 mm: TD considered as a discontinuous extension (pT3)



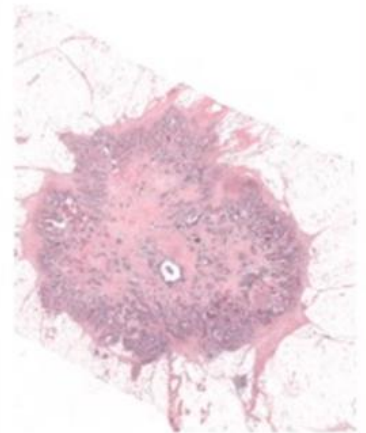
If irregular or spiculated: TD considered as an EMVI



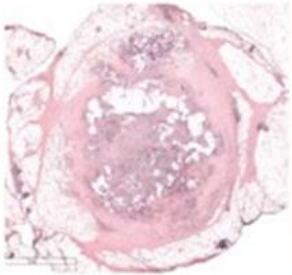
Introduction of the term 'TD'
Creation of a pN1c subcategory in the absence of concomitant lymph node metastasis



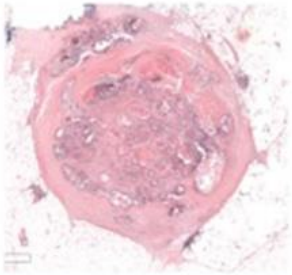
TD only if the absence of vascular or perineural invasion



If >3 mm: TD considered as a regional lymph node metastasis



If rounded: TD considered as a regional lymph node metastasis



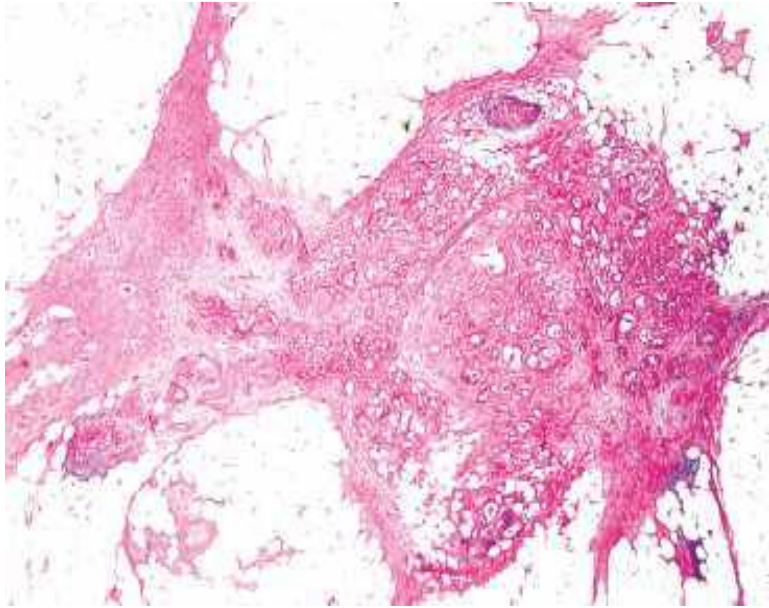
TNM5/AJCC 1997

TNM6/AJCC 2002

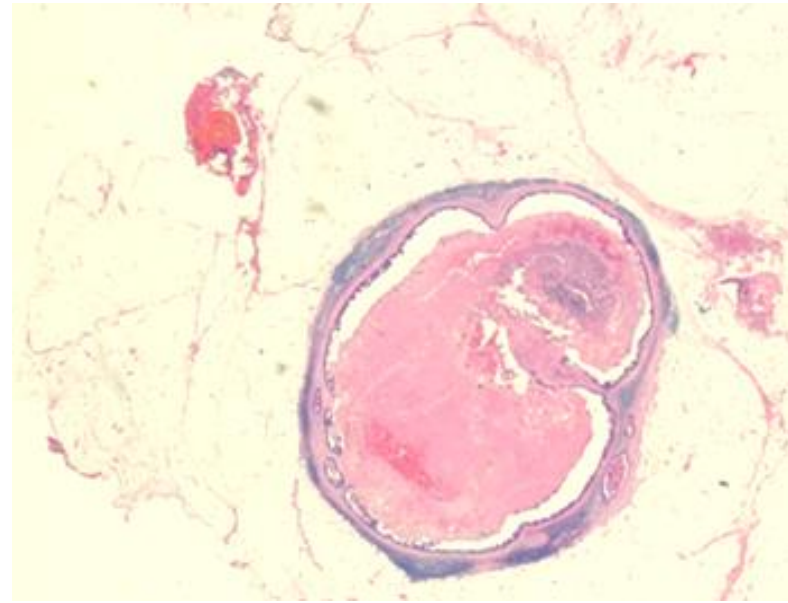
TNM7/AJCC 2010

TNM 8/AJCC 2018





Perineural invasion: nerve demonstrable
Venous invasion: vessel demonstrable
(may require deeper levels or special stains that reveal vessel wall (e.g., elastic stains))

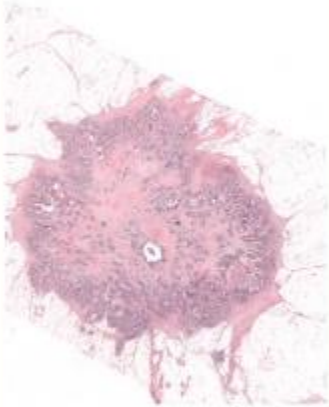


Lymph node metastasis: Thick capsule
Subcapsular sinus
Lymphoid tissue present (sometimes a rim of lymphocytes)
Round shape

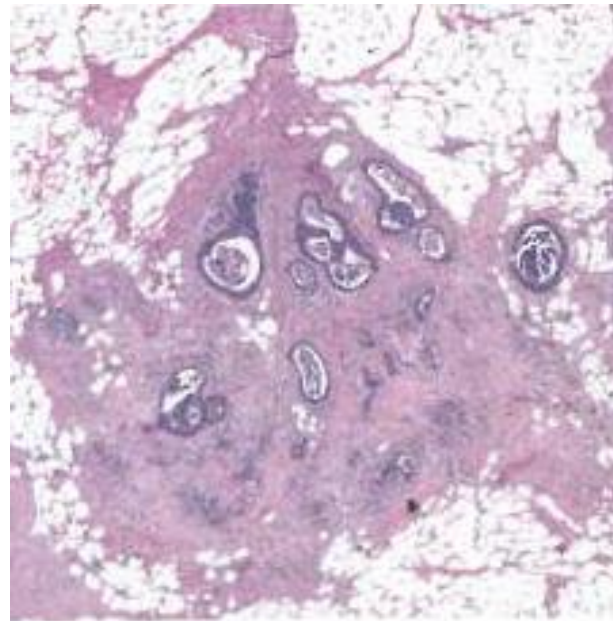
Tumor deposit (N1c)
Round outline with no features of the above

No vascular or perineural invasion

TD only if the absence of vascular or perineural invasion



Tumor deposits (TD) in colon cancer are defined as tumor foci in the pericolic fat, distant from the tumor invasion front in the lymphatic drainage territory of the tumour, without recognizable residual lymph node tissue.



Tumor deposit are only considered in the absence of nodal metastases and categorized as N1c (WHO 2019).



Stat Rosa pristina nomine
nomina nuda tenemus