Anal neoplasm slide seminar

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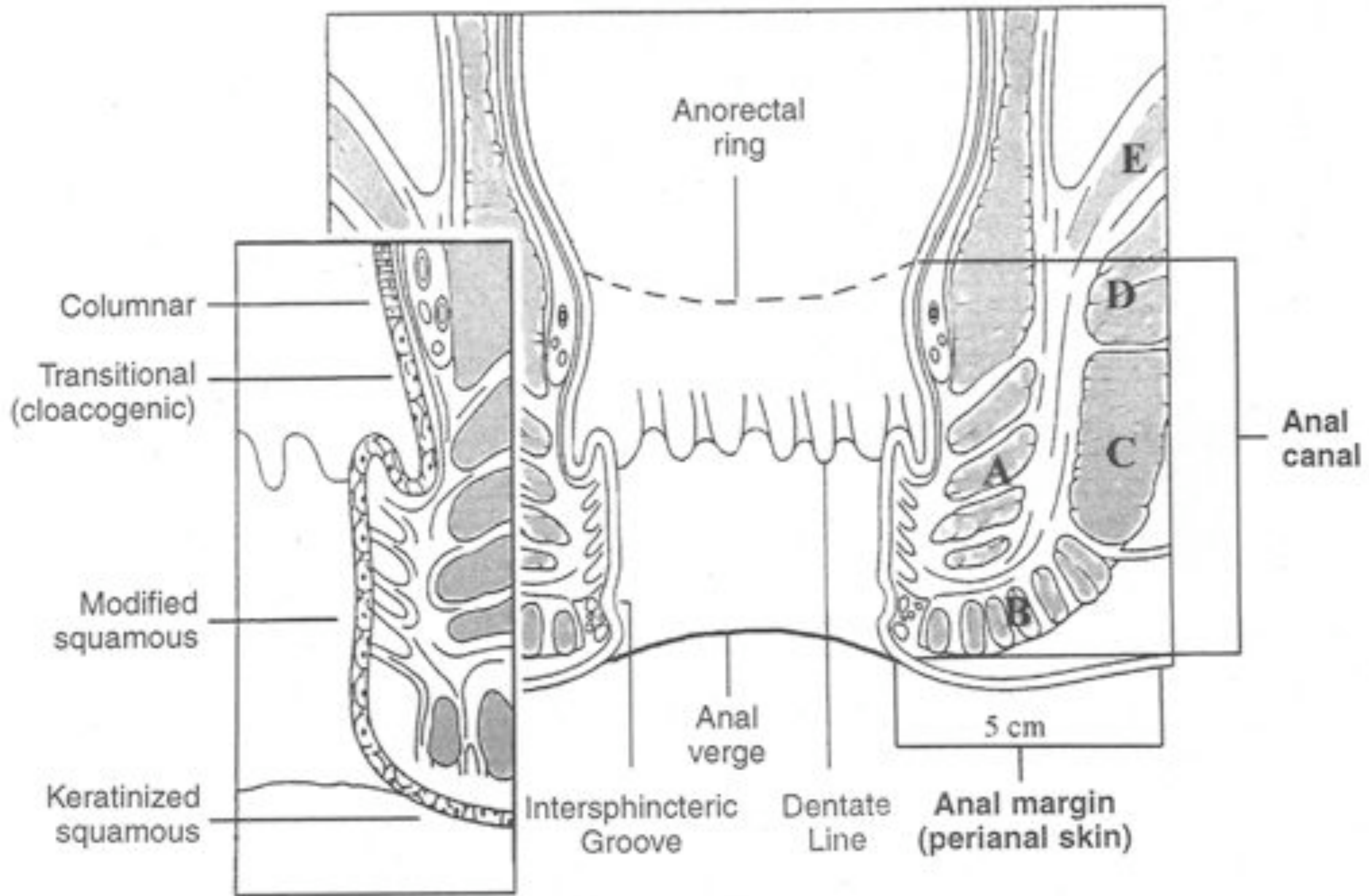


Anorectal
ring
E
D
C
A
B
Columnar
Transitional
(cloacogenic)
Modified
squamous
Keratinized
squamous
Anal
canal
Anal
verge
5 cm
Intersphincteric
Groove
Dentate
Line
Anal margin
(perianal skin)

Anatomy

- Definition of anal canal
- Definition of dentate line
- Location of different epithelia
- Location of anal glands

Remember:

- Report what will impact on clinical management

Case 7 – AIN3/severe dyplasia

- Anal canal vs. perianal
- Anal squamous intraepithelial lesion:
  - Low grade = AIN1; High grade = AIN2+3
  - p16 IHC?
- Invasive squamous cell carcinoma
  - Anal canal vs. perianal
  - Perianal – report like skin SCCs

Histologic Diagnosis	Total	Negative	Positive	Pattern of Staining		Distribution of Staining	
				Focal	Diffuse	1/3 or Less	More than 1/3
Normal/reactive	35	26	9	6	3	5	4
Low-grade AIN	23	6	17	12	5	13	4
High-grade AIN	17	0	17	4	13	3	14
Total	75	32	43	22	21	21	22

p16 IHC and degree of AIN (Am J Surg Pathol 2007; 31: 555)

Case 5 – Squamous cell ca

- Consider other carcinomas
  - ABPAS, p63
- Consider other primary sites
  - Background dysplasia
  - IHC? (ER??)
- Reporting anal canal SCCs
  - Size, completeness of excision
  - Differentiation, L/V invasion

UICC Staging of Anal Canal Cancer

Tx Tumor cannot be assessed

T0 No evidence of tumor

Tis Carcinoma in situ

T1 < 2 cm in greatest dimension

T2 > 2 cm and < 5 cm

T3 > 5 cm

T4 Any size with invasion of adjacent organ(s) (e.g. vagina, urethra, bladder)

UICC Staging of Skin (Perianal) Cancer

Tx Tumor cannot be assessed

T0 No evidence of tumor

Tis Carcinoma in situ

T1 < 2 cm in greatest dimension

T2 > 2 cm and < 5 cm

T3 > 5 cm

T4 Invasion of deep extradermal structures (e.g. skeletal muscle, bone)

- Perianal SCC
  - Better prognosis, mets to inguinal LNs
  - pT1 and pT2 with 1 cm margin + N0: WLE
  - All others: DXT/Chemotherapy
- Anal canal SCC
  - Worse prognosis, mets to int iliac and perirectal LNs
  - DXT/Chemotherapy
  - AP resection only as salvage procedure

Case 4 – Anal canal SCC

- Basaloid? – new WHO classification
- Small cell carcinoma – different Chemo
- Adenosquamous?
  - ABPAS (beware: ‘mucoepidermoid’ ca)
  - ?p63 ?CDX2
  - ?resistance to standard SCC Rx

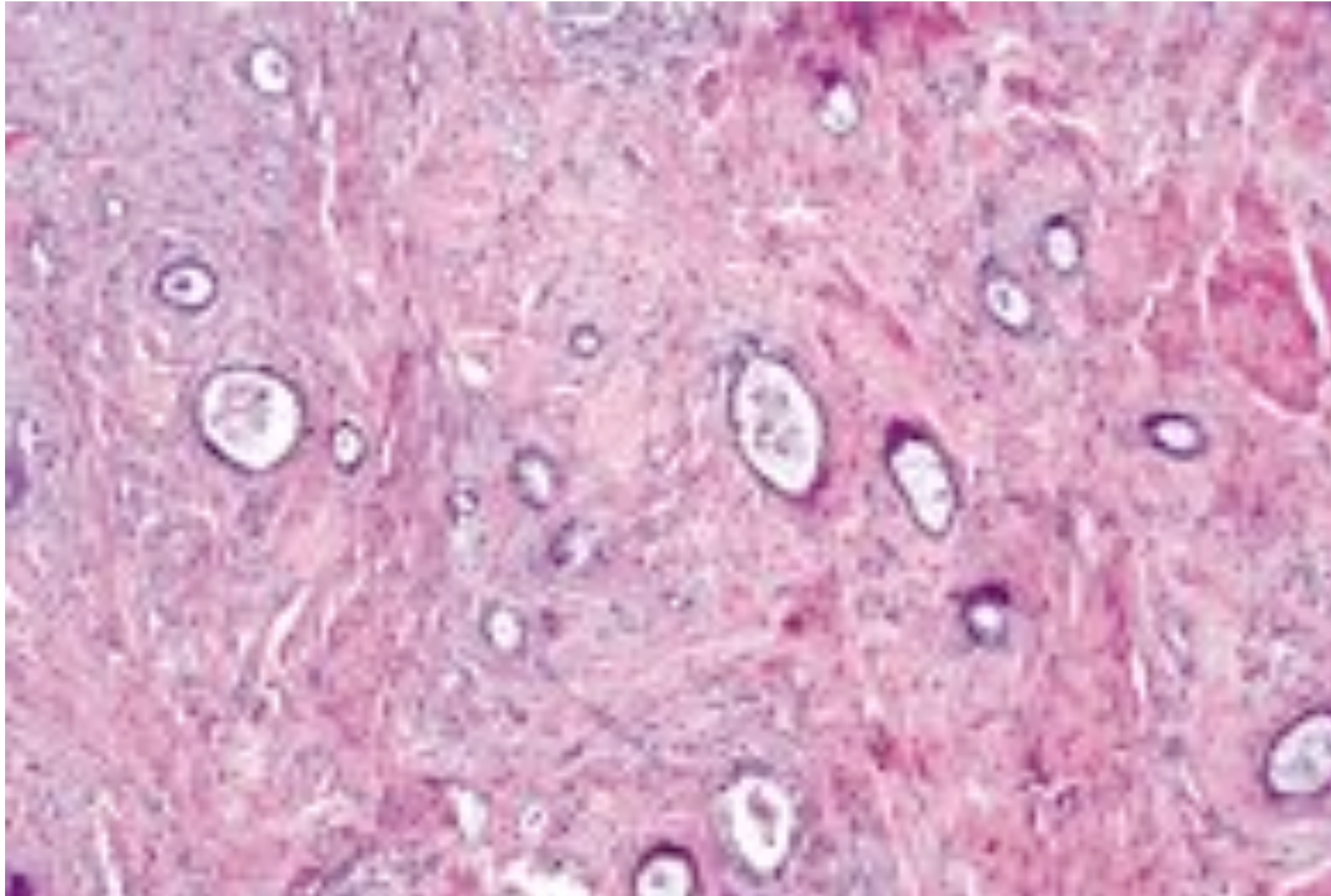
Case 3 – Perianal BCC

- Differentiate from 'Basaloid' anal canal SCC
- Immunohistochemistry:
  - Perianal BCC: BerEP4+ EMA/CEA/CK19-
  - Basaloid SCC: BerEP4- EMA/CEA/CK19+
- BCC treated with WLE only (cw anal canal SCC)

Case 1 – fistula adenocarcinoma

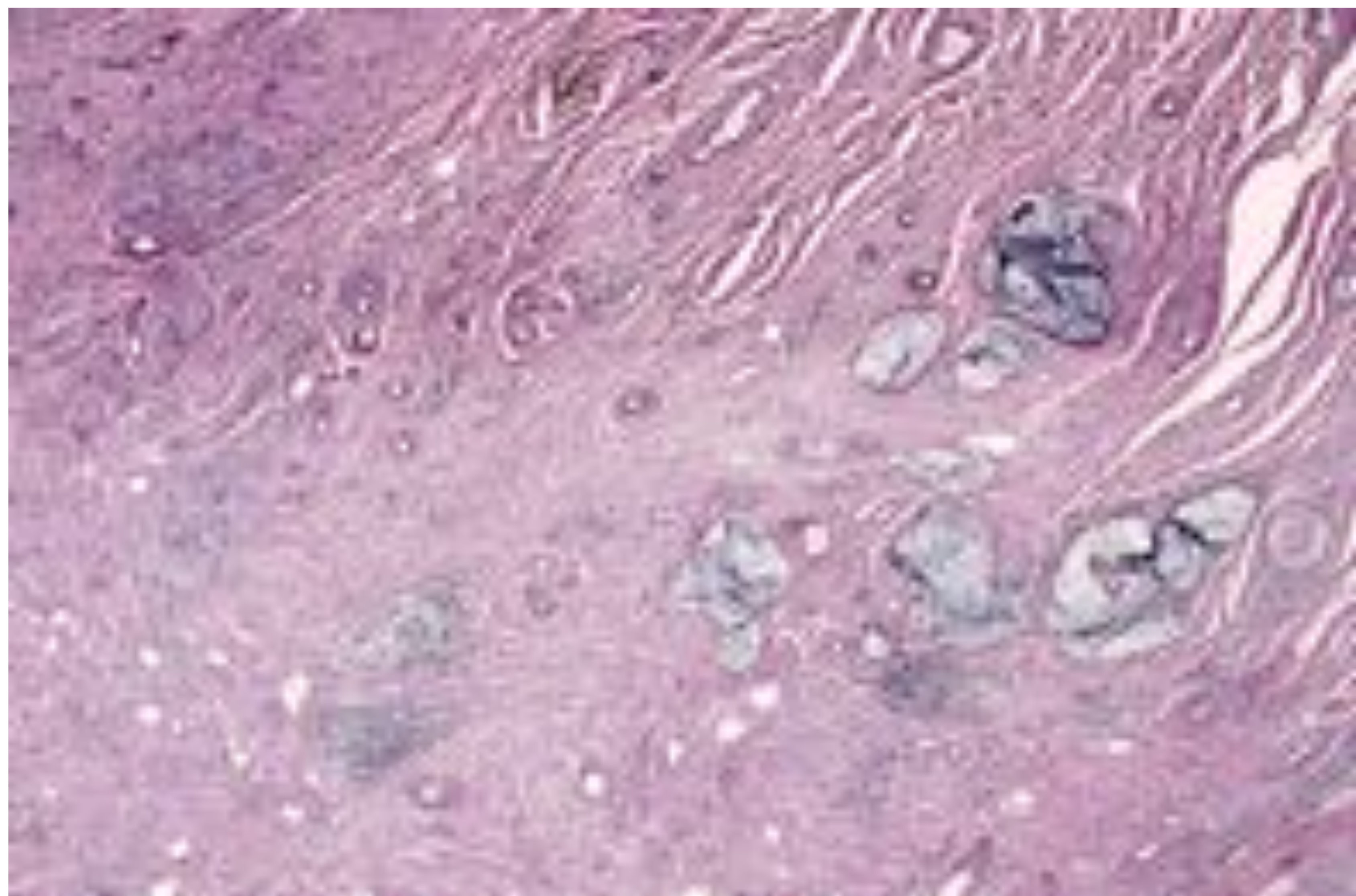
- Exclude prostatic carcinoma
- Adenocarcinoma of anal canal:
  - Low rectal adenocarcinoma
  - Anal gland carcinoma
  - Adenocarcinoma within anorectal fistulae

WHO definition of anal gland carcinoma



Anal gland carcinoma

- CK7+ CK20- CDX2- (but remember rare rectal carcinoma profile)
- Can anal gland carcinoma be mucinous?



Crohn's fistula adenocarcinoma

- Longstanding disease
- Discharging fistula not responding to anti-inflammatory Rx
- Mucinous phenotype
- Are fistula adenocarcinomas related to anal gland carcinomas?
- Why important distinction?

Case 6 – Cloacogenic polyp

- Distinguish from serrated and adenomatous polyps (management implications)
- Mucosal prolapse?

Case 2 – Primary anal melanoma

- Melanin pigment and junctional component
- Pitfalls of immunhistochemistry
  - CD117 and DOG1 positivity
- *KIT* mutation
  - Acral, mucosal and CSD melanomas
  - Response to imatinib

Case 8 – ‘Rectal tonsil’

- Distinguish from MALT lymphoma
- Clinical history – young adult, rectal bleeding
- Chlamydia infection