

Anal Cancer – Emilia Fisher, MS3

Etiology

- 20 per million, 2.2% of digestive malignancies in US
- Higher incidence: female, HPV, multiple sexual partners, genital warts, cigarettes, receptive anal intercourse, HIV (worse treatment toxicity)
- Only 3-4% of anorectal carcinomas in anal canal
- Two types
 - Anal canal
 - From glandular, transitional, or squamous tissue
 - Above dentate line: nonkeratinizing; distal: keratinizing
 - Those from glandular elements similar to rectal adenocarcinomas
 - Transitional and squamous mucosal behave similarly
 - 5-year survival 82-87% with chemoradiation
 - Anal margin/Perianal
 - Within hair-bearing skin or distal to mucocutaneous junction
 - Melanomas; others behave like skin cancers
 - Dismal prognosis for malignant melanomas, present with widespread mets, often amelanotic

Presentation and Evaluation

- Bleeding (45%), pain (30%), lump (30%), no symptoms (20%)
- 50% history of anorectal condyloma
- Exam must include palpation of inguinal nodes, biopsy of primary tumor, CT of chest, CT or MRI of abdomen and pelvis, PET scan, and gyn exam for women
 - PET scan more sensitive than CT/MRI in detecting inguinal node mets

Treatment

Limited Local Disease

- Stage I-III, M0: 5-FU + mitomycin C + radiotherapy
 - 5-FU 1000 mg/m²/day on 1-4, 29-32
 - Mitomycin 10 mg/m² IV bolus on 1-29 (max 20 mg/dose)
 - Radiotherapy in all stages, min 45 Gy over 5 wk
 - Additional 9-14 Gy for T3, T4, N+, or residual after 45 Gy
 - Radiation prophylactically included to groin

Metastatic

- Stage IV, M1: Cisplatin + 5-FU
 - 5-FU 1000 mg/m²/day on 1-5
 - Cisplatin 100 mg/m² IV on 2
 - Repeat every 28 days until disease regression

Salvage

- Recurrent or persistent disease 26 weeks after chemoradiotherapy
 - Local: surgery
- Higher morbidity – Abdominoperineal resection and inguinal node resection

Adenocarcinoma of anal canal

- Surgery as primary therapy

Posttreatment

- Assess clinically 8-12 weeks after completion of radiotherapy
- Reexam every 3-6 months

Staging

Tumor	Nodes	Mets
Tx: cannot be assessed	Nx: Regional nodes cannot be assessed	M0: No distant mets
T0: no primary tumor	N0: No regional node mets	M1: Distant mets
Tis: Carcinoma in situ (Bowen's disease, high-grade squamous intraepithelial lesion (HSIL), anal intraepithelial neoplasia II-III (AIN II-III))	N1: Mets in perirectal nodes	

T1: 2cm or less	N2: Mets in unilateral internal iliac and/or inguinal nodes	
T2: 2-5cm	N3: perirectal and inguinal nodes and/or bilateral internal iliac and/or inguinal nodes	
T3: >5cm		
T4: invades local organs (vagina, bladder, urethra)		

Prognostic Groups

0	Tis	N0	M0	100%
I	T1	N0	M0	70% (5-year)
II	T2	N0	M0	59%
	T3	N0	M0	
IIIA	T1	N1	M0	41%
	T2	N1	M0	
	T3	N1	M0	
	T4	N0	M0	
IIIB	T4	N1	M0	
	Any T	N2	M0	
	Any T	N3	M0	
IV	Any T	Any N	M1	19%