

Anoscopía de alta resolución, paso a paso

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Agenovir Corporation
Scientific advisory board

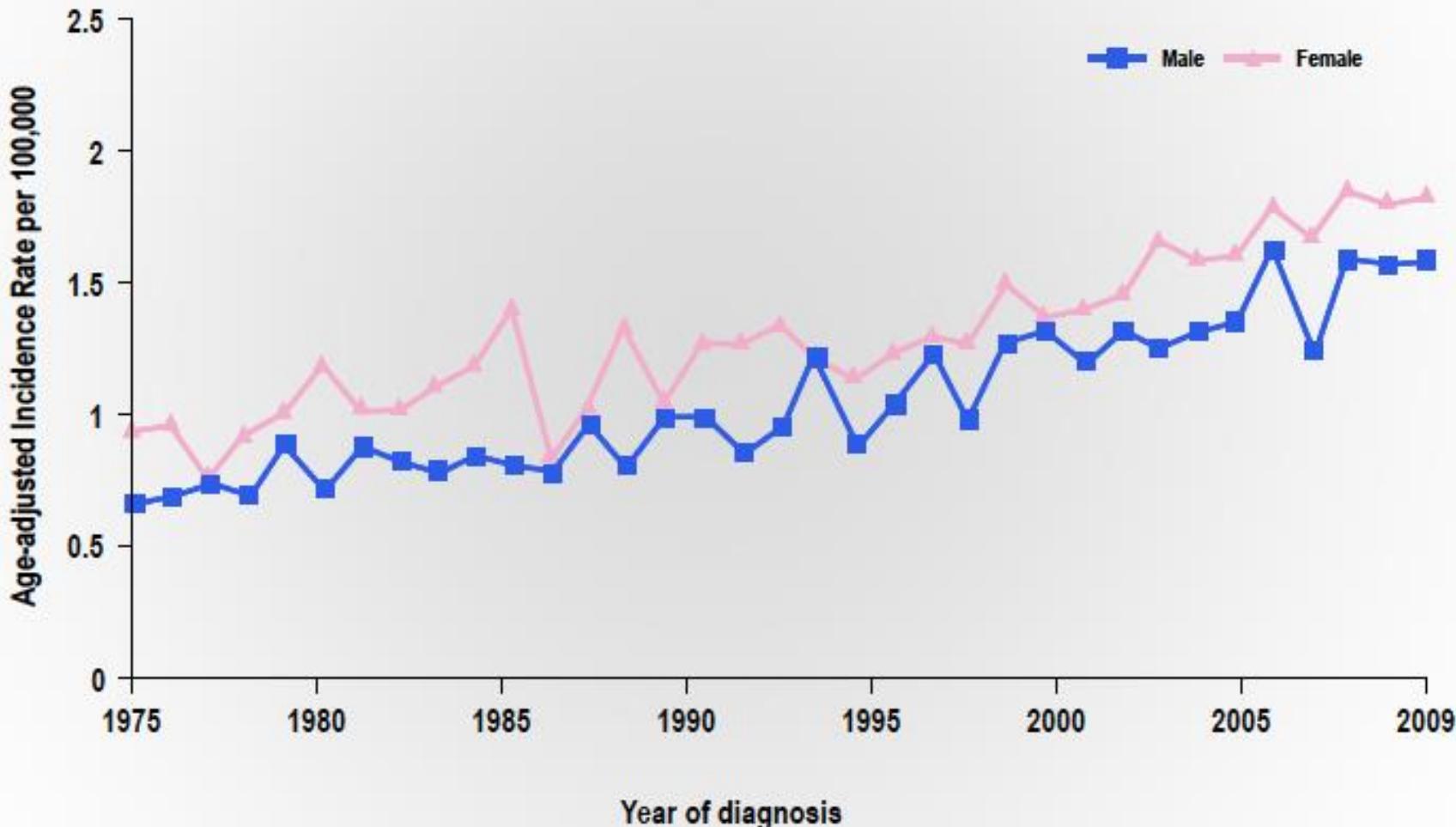
Antiva Biosciences

Scientific advisory board

The Vax

Scientific advisory board

Age-Adjusted Incidence of Invasive Anal Cancer by Gender and Year of Diagnosis: United States



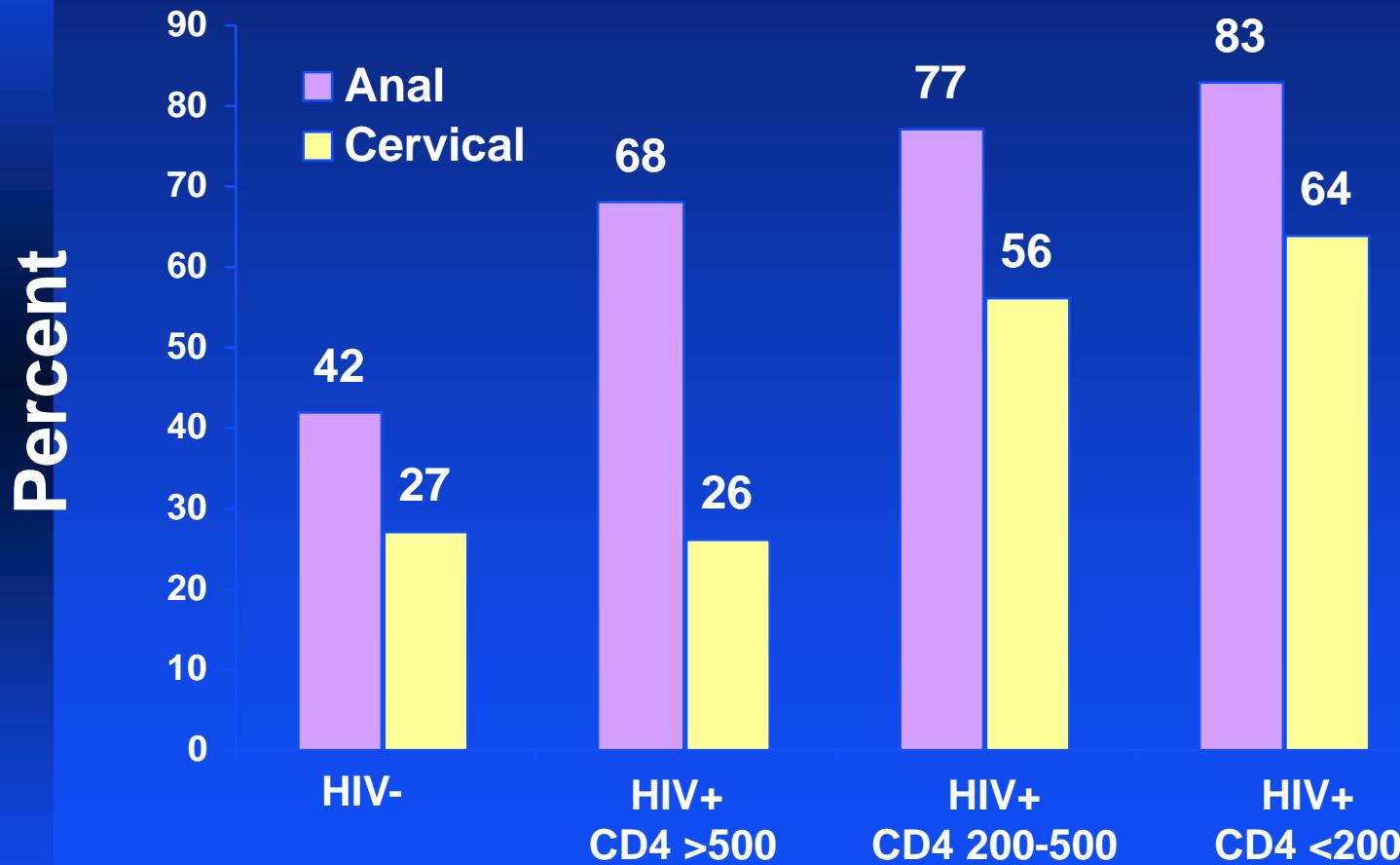
Anal cancer rates in North American AIDS Cohort Collaboration on Research and Design) (NA-ACCORD) 1996-2007

Incidence/100,000 (85% CI)

- HIV-infected

- | | |
|---------|---------------|
| • MSM | 131 (109-157) |
| • MSW | 46 (25-77) |
| • Women | 30 (17-50) |

Anal and cervical HPV infection in HIV-positive women and HIV-negative women at high risk of HIV infection



Distribution of anal and cervical HPV types among HIV-infected women

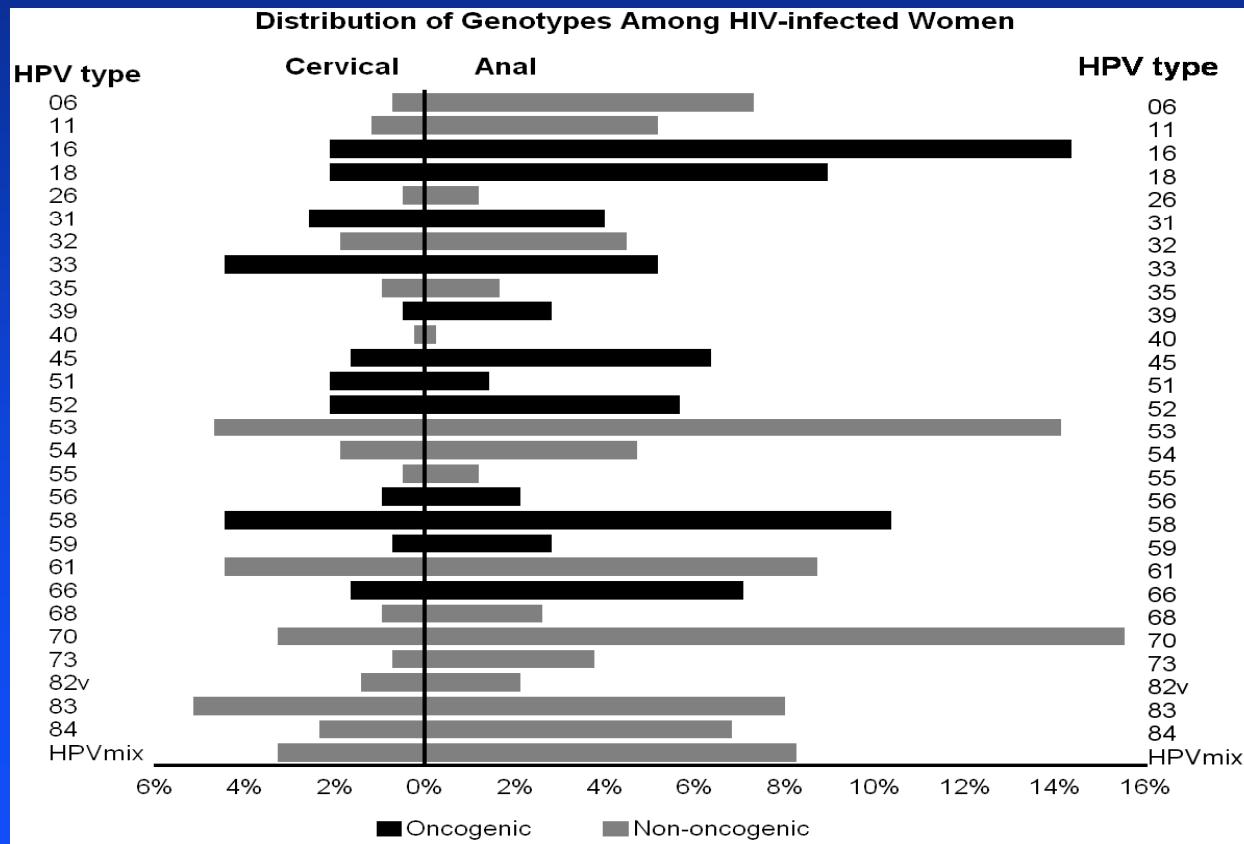


Table 2. Anal Cytology and Anal Human Papillomavirus (HPV) Test Results by Participant Category for the 621 Participants in the SUN Study, 2004–2006

Diagnosis	All Participants	MSM	Women	MSW
Anal cytology results				
Negative	336 (54)	165 (44)	97 (65)	74 (80)
ASC-US	79 (13)	52 (14)	20 (13)	7 (8)
ASC-H	17 (3)	12 (3)	3 (2)	2 (2)
LSIL	149 (24)	116 (31)	25 (17)	8 (9)
HSIL	40 (6)	34 (9)	5 (3)	1 (1)
HPV types detected				
Any	552 (89)	363 (96)	135 (90)	54 (59)
High-risk	510 (82)	336 (89)	126 (84)	48 (52)
Low-risk	471 (76)	324 (85)	110 (73)	37 (40)
16 or 18	255 (41)	192 (51)	47 (31)	16 (17)

Risk factors for anal HSIL and anal cancer in women

- High grade CIN/VIN,cervical and vulvar cancer
- Anal intercourse
- Immunosuppression
- Smoking

Cervical Squamo-columnar Transformation Zone

Active transformation zone

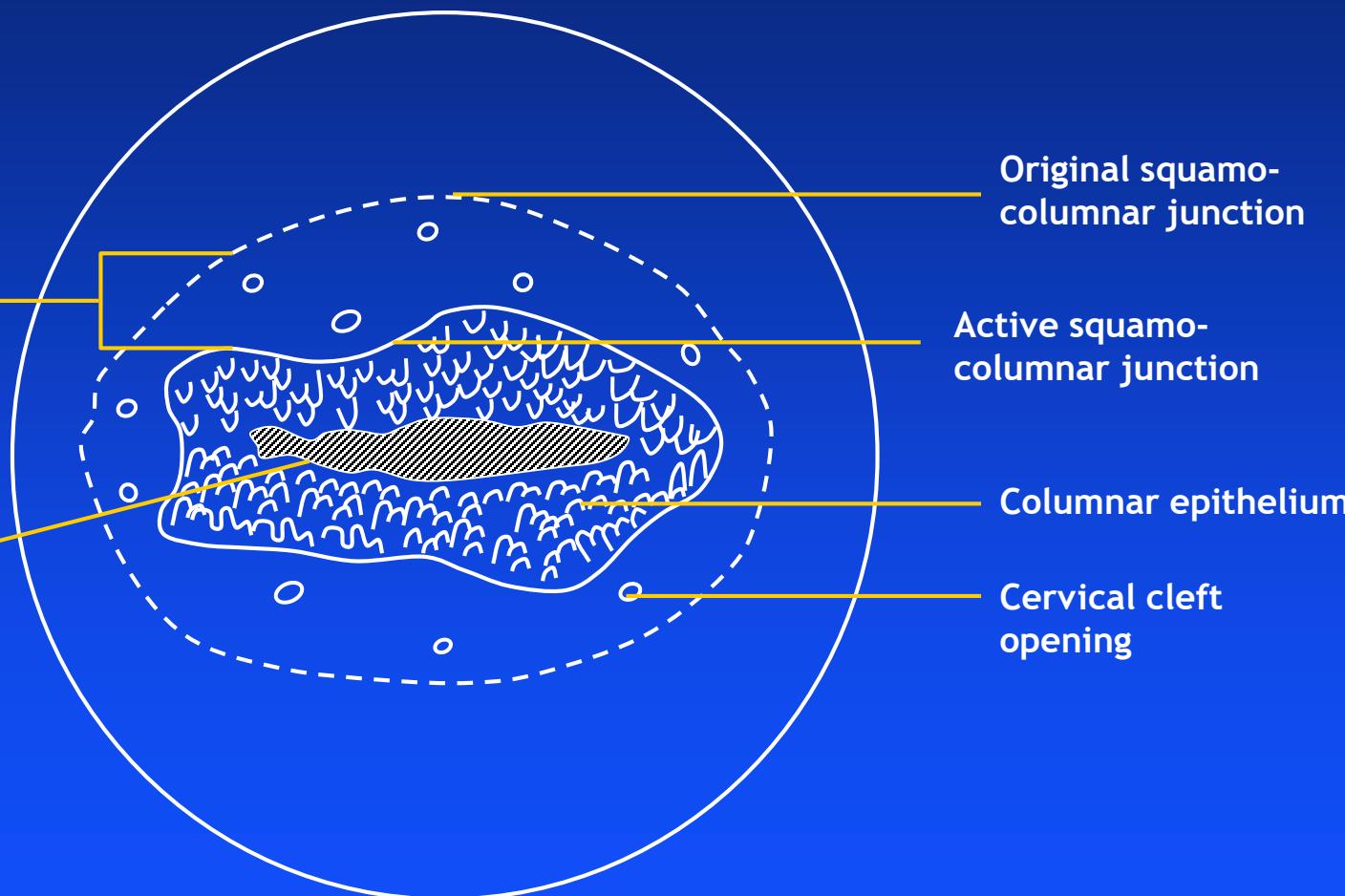
External os

Original squamo-columnar junction

Active squamo-columnar junction

Columnar epithelium

Cervical cleft opening



2-tiered system: LSIL & HSIL

Schematic Representation of SIL

	Low-grade squamous intraepithelial lesion (LSIL)		High-grade squamous intraepithelial lesion (HSIL)		
	Condyloma	CIN/AIN grade 1	CIN/AIN grade 2	CIN/AIN grade 3	
Normal		Very mild to mild dysplasia	Moderate dysplasia	Severe dysplasia	<i>In Situ</i> carcinoma

The diagram illustrates the progression of cervical dysplasia through three main stages:

- Infection:** Shows normal squamous epithelium with distinct layers of basal, parabasal, and superficial (Koilocytes) cells.
- Precancer:** Shows early changes in cell morphology, including enlarged nuclei and irregular boundaries, characteristic of low-grade squamous intraepithelial lesion (LSIL).
- HSIL:** Shows significant cellular atypia, including large, pleomorphic nuclei and extensive nuclear异型 (atypia), characteristic of high-grade squamous intraepithelial lesion (HSIL).

A blue box contains the text: "Reflects HPV biology and clinical management".

Labels at the bottom indicate: Koilocytes, Infection, Microl., Precancer.

Introduction to HRA

Effective screening programs have decreased rates of cervical cancer > 70% over past 50 years

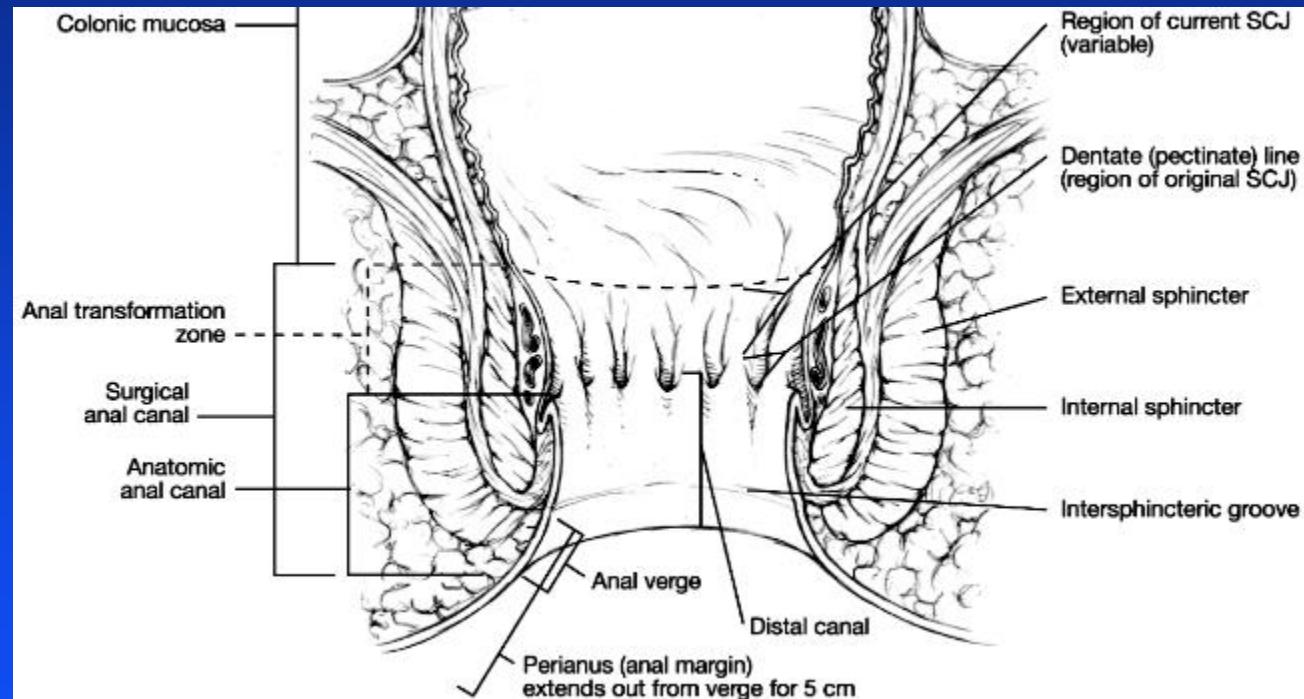
Equipment, procedures & terminology developed for screening and treatment of cervical disease are applicable to screening, identification and prevention of anal cancer

HRA: Examination

Thorough exam with biopsies, 15-20 minutes

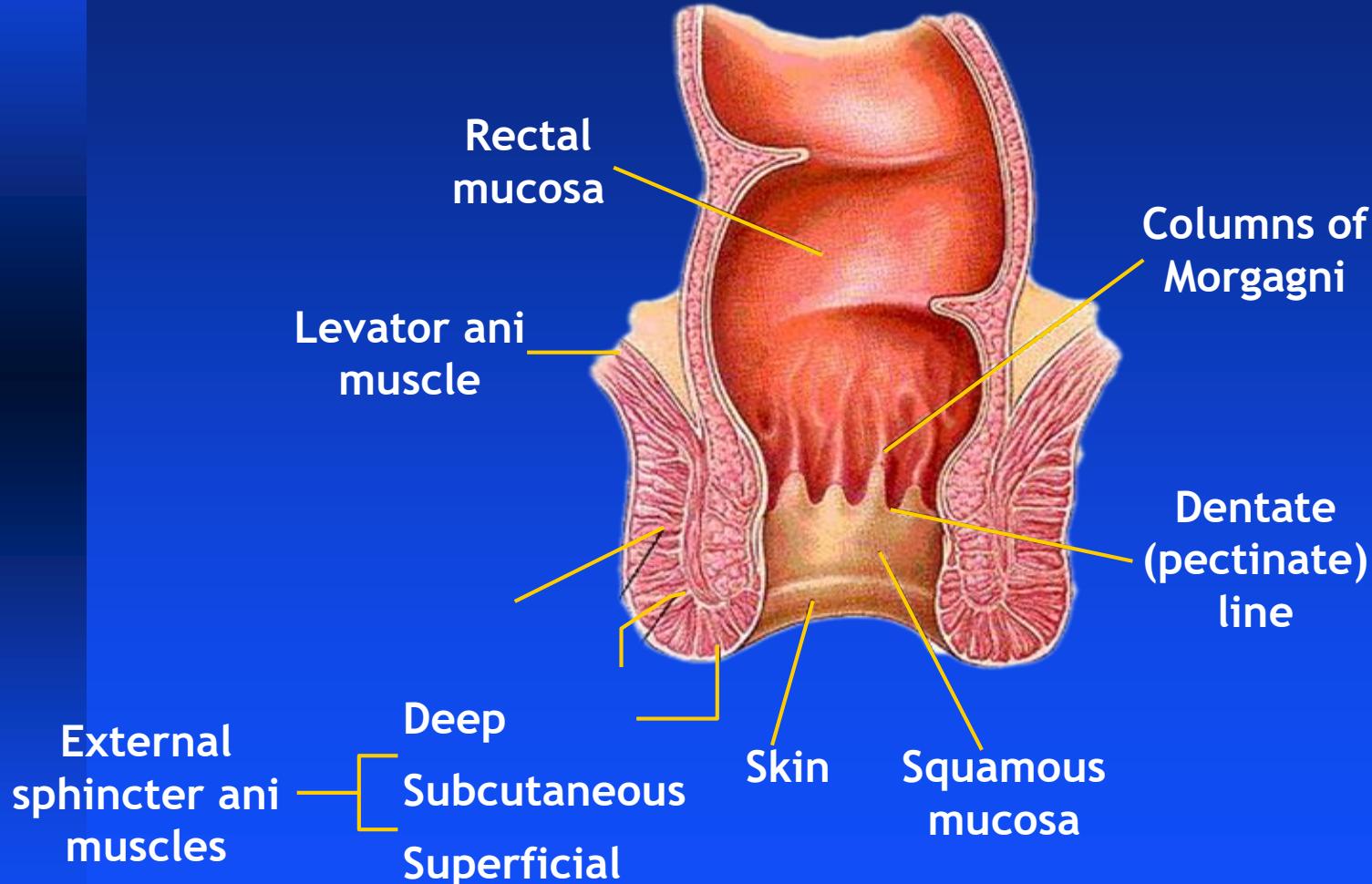
Areas to be examined:

SCJ
AnTZ
Anal Canal
Anal Verge
Perianal Skin

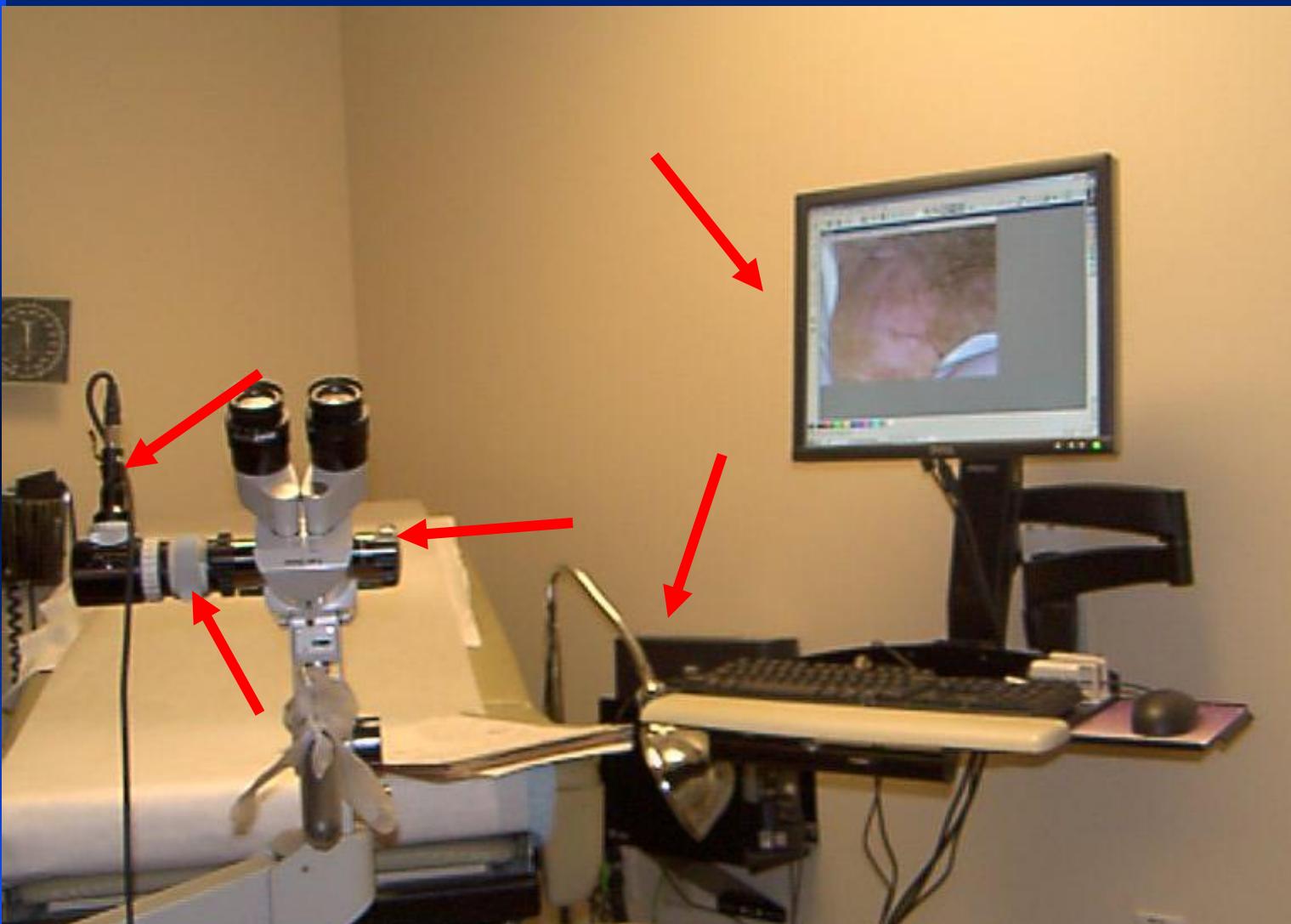


Satisfactory exam = ALL aspects viewed completely

Anal anatomy



Digital video imaging system



Digital documentation, captures still images; live video for teaching

Preparation

- “Come as you are”
- No enemas, no douche, no prep
- Nothing per anus for 24 hours
- Avoid spicy food for 24 hours

How to Perform an Anal Cytology

- 1) Insert moistened Dacron swab until it bypasses the internal sphincter and abuts the distal wall of the rectum



Anal Cytology (con't)

- 2) Rotate swab in a circular fashion as it is withdrawn in order to sample cells from all aspects of anal canal.



Anal Cytology (con't)

- 3) Swab should bend slightly with gentle pressure to allow for adequate collection of cells.
- 4) Count slowly to 10 before removing swab.



Digital Anorectal Exam (DARE)

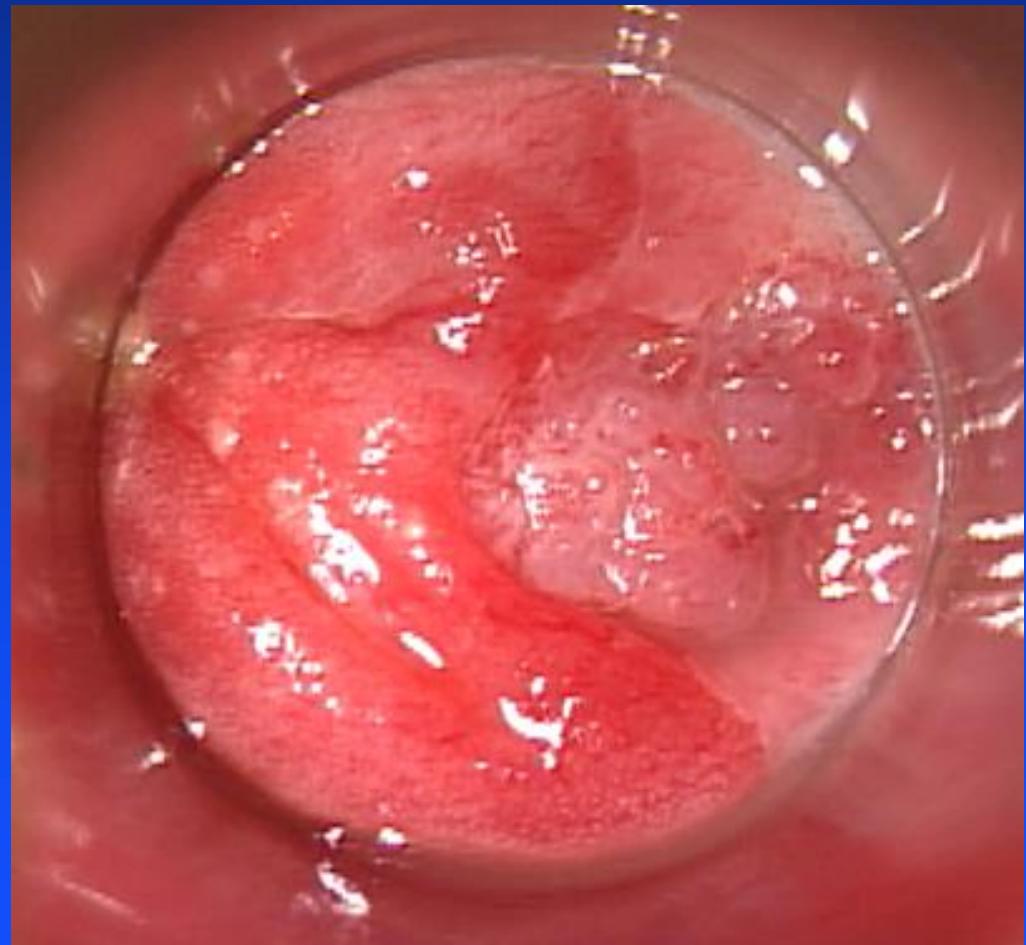


DARE (con' t)

- 1) Once inside the rectum, carefully palpate the entire circumference, beginning in the rectum, feel the mucosa over the internal sphincter and then the walls of the distal anal canal
- 2) Palpate for warts, masses, ulcerations, fissures, focal areas of discomfort or pain with palpation.
- 3) Once completed, in men examine the prostate

DARE (con' t)

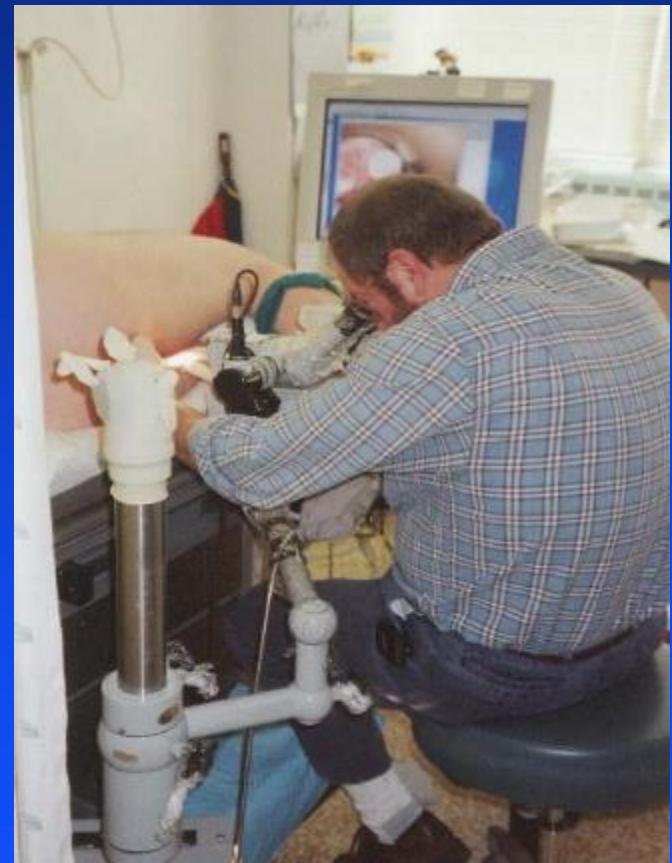
Example of
cancer
found by
DARE



High Resolution Anoscopy

What is high-resolution anoscopy?

The examination of the anus, anal canal and perianus using a colposcope with 5% acetic acid and Lugol' s solution.

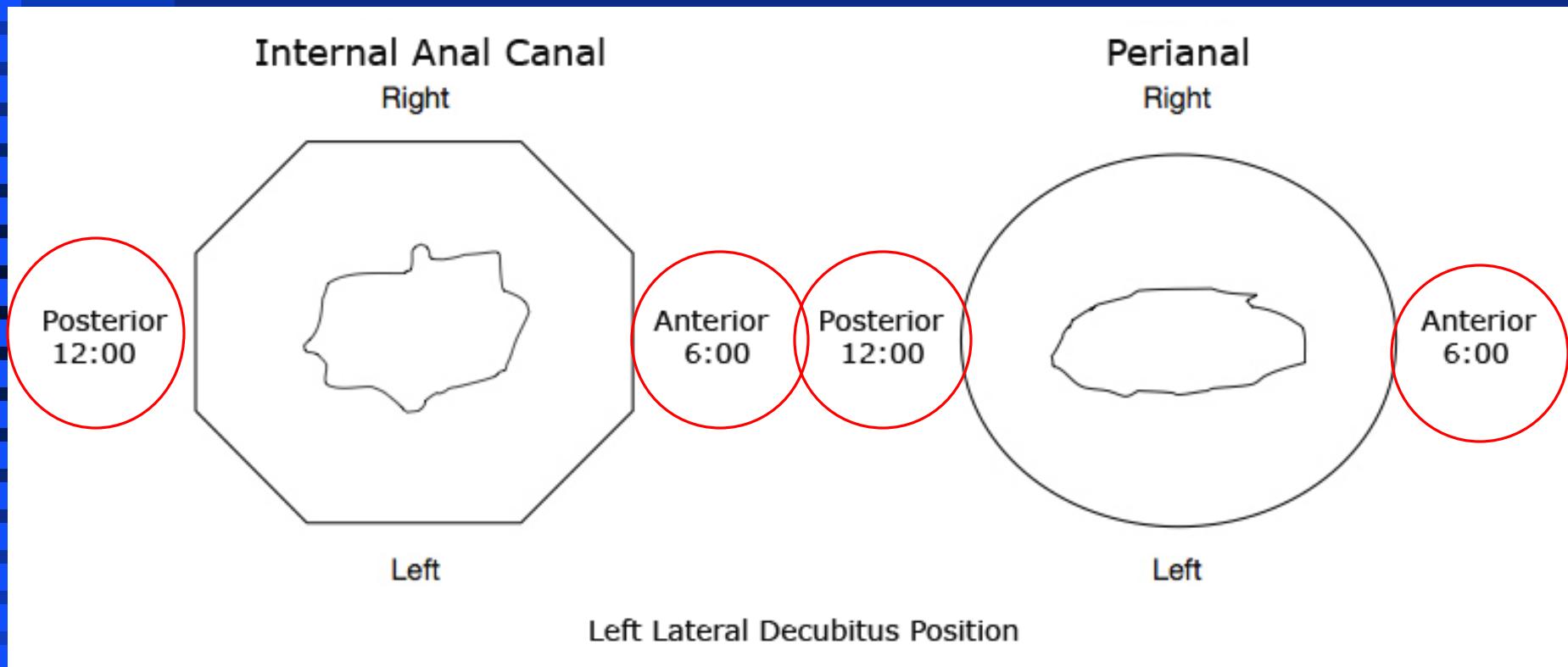


HRA: Positions

- Left lateral
- Lithotomy if also performing cervical exam (most women prefer to switch for HRA)
- Prone
- Be clear and consistent in describing location of lesions and position used during examination

Anal “Clock”

Preferred: anatomic descriptors



Always note examining position

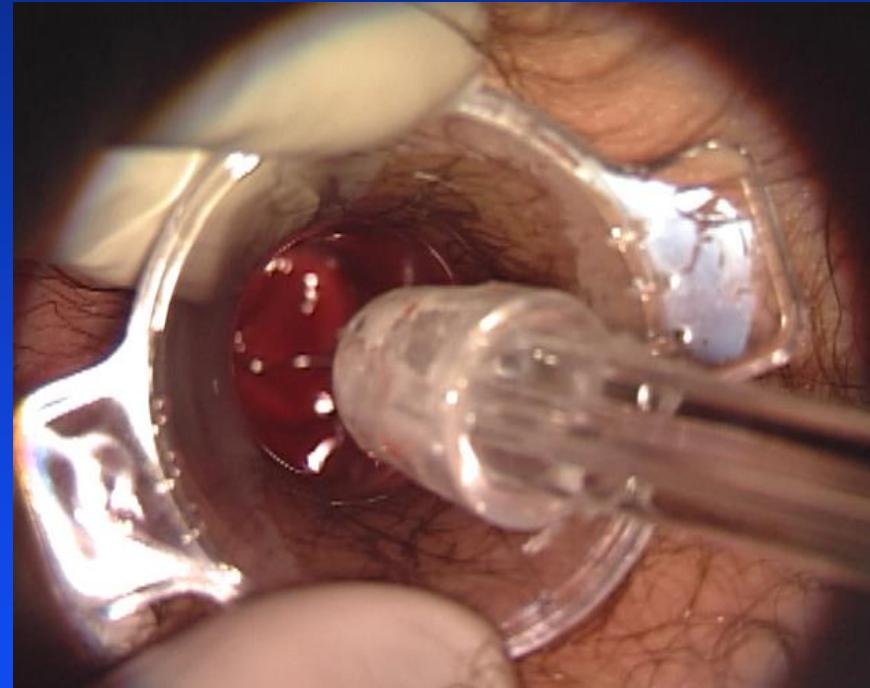
HRA (con't)

Insert anoscope



HRA (con't)

Remove obturator



HRA (con't)

Insert Q-tip
wrapped in
gauze
soaked in
acetic acid
through
anoscope.



HRA (con't)

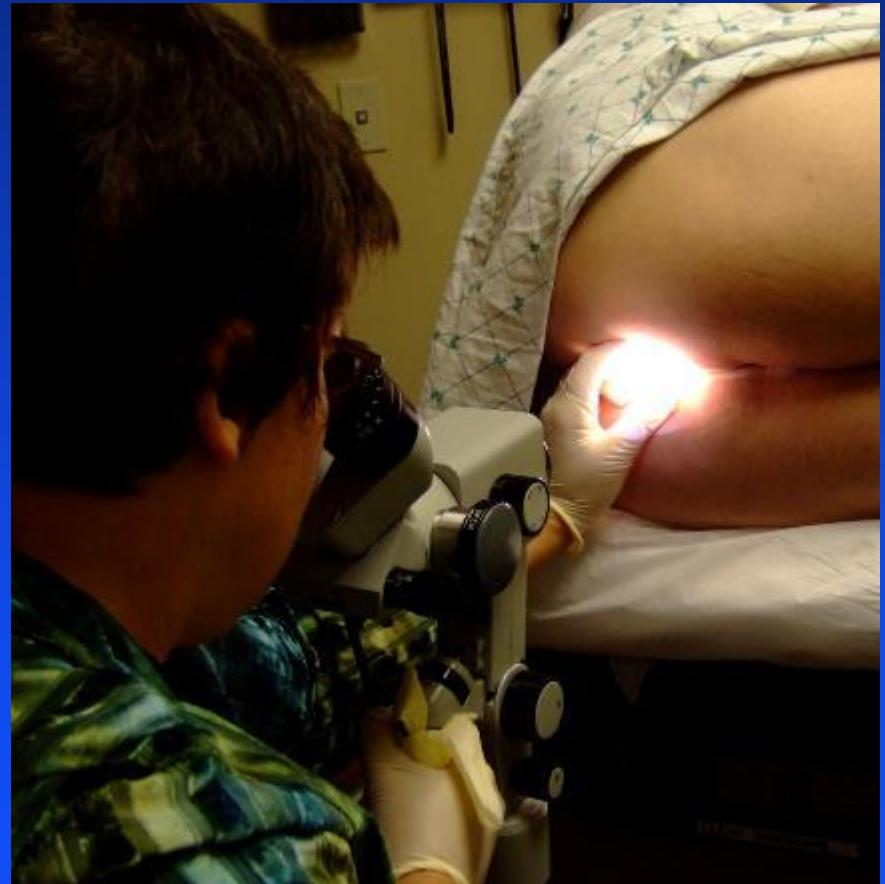
Remove
anoscope
leaving the
gauze & Q-tip
inside. Soak
for 1-2
minutes.



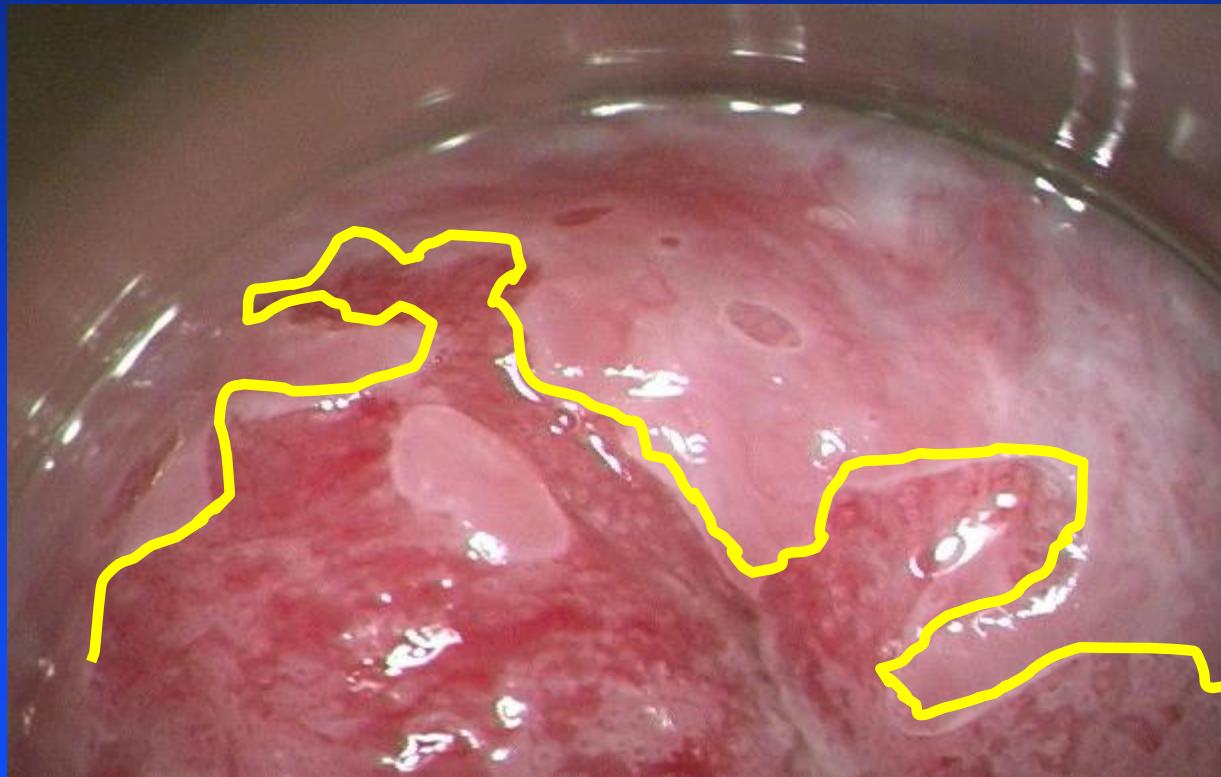
HRA (con't)

Remove gauze
and re-insert
anoscope.

Observe through
colposcope
slowly
withdrawing the
anoscope until
the SCJ comes
into focus.



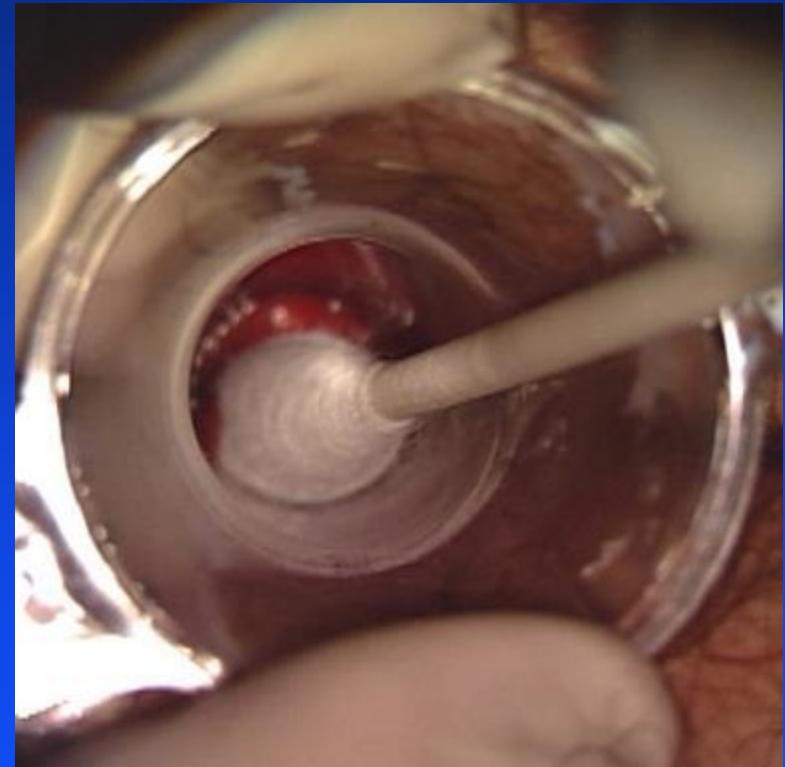
Squamocolumnar Junction (SCJ)



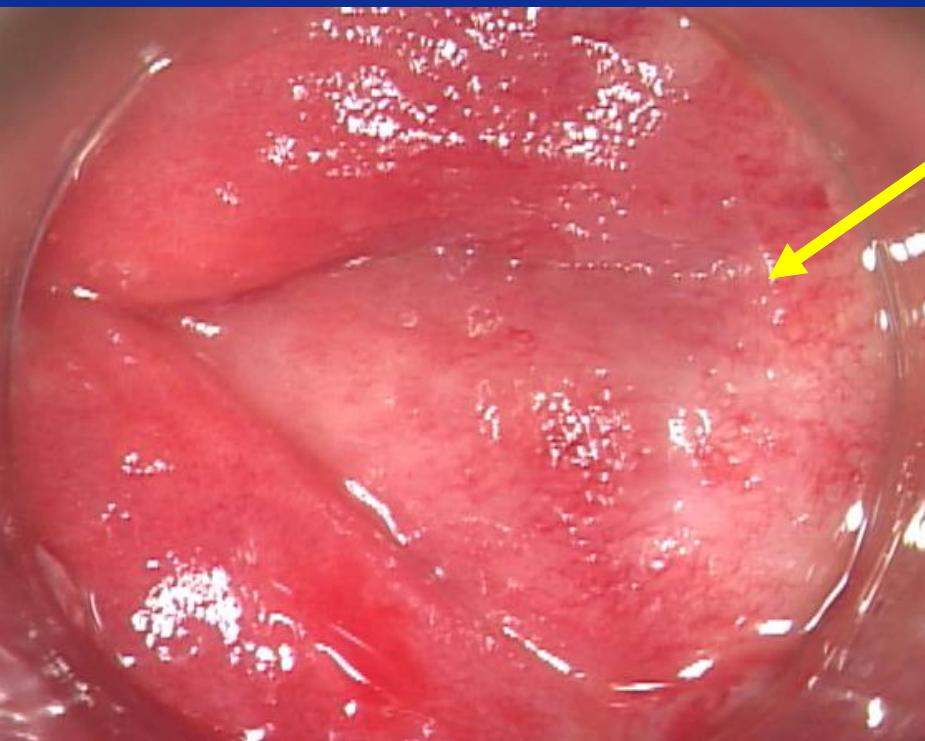
HRA (con't)

Examine entire circumference of the SCJ.

Re-apply acetic acid liberally during exam.



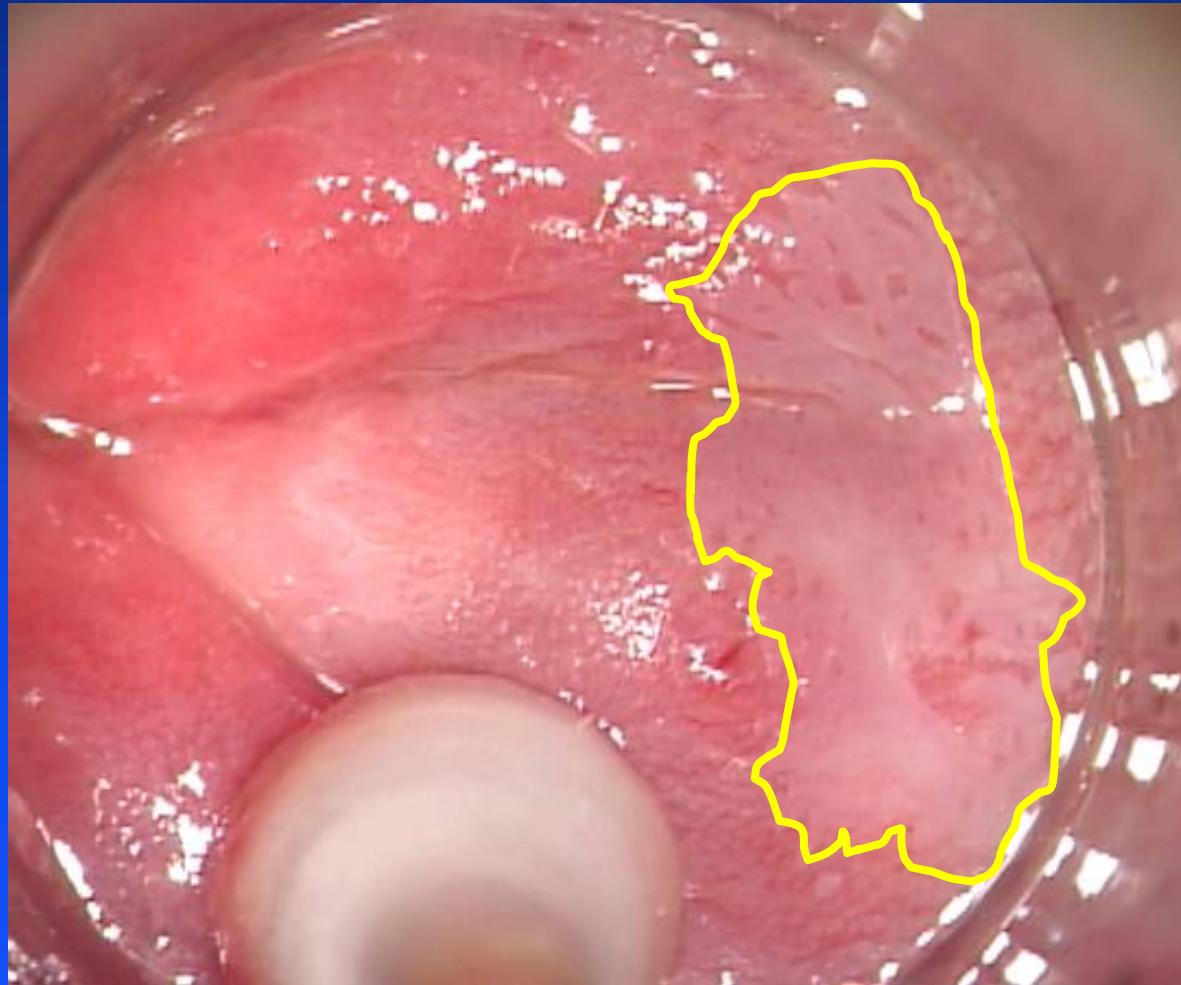
AWE with initial
acetic acid swab



AWE with additional
acetic acid

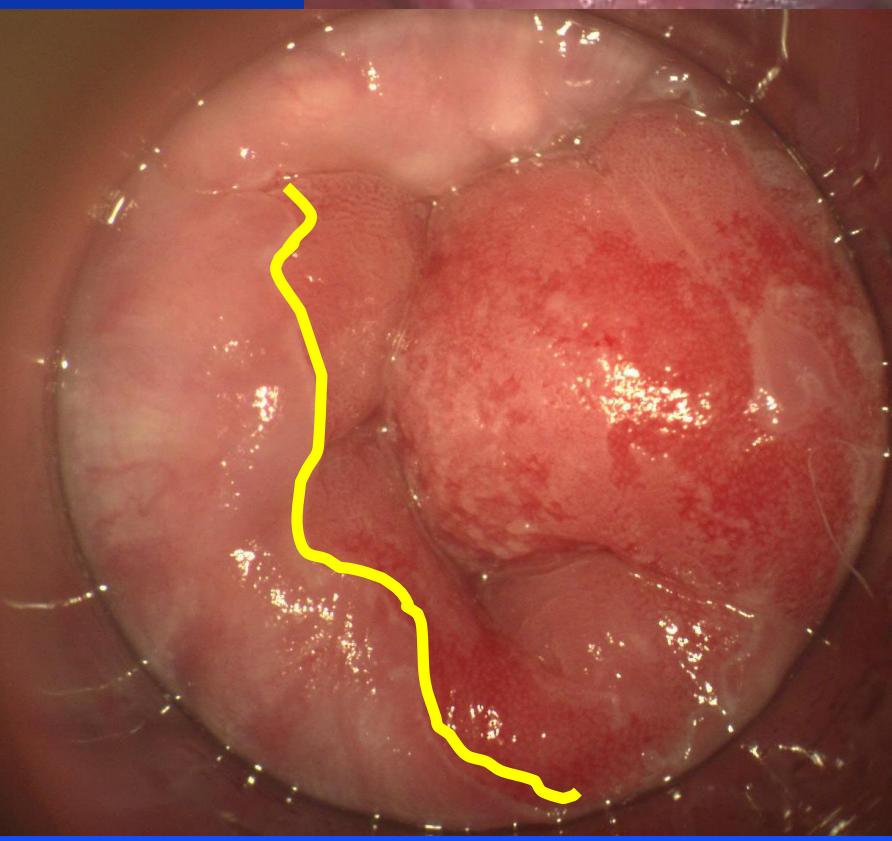
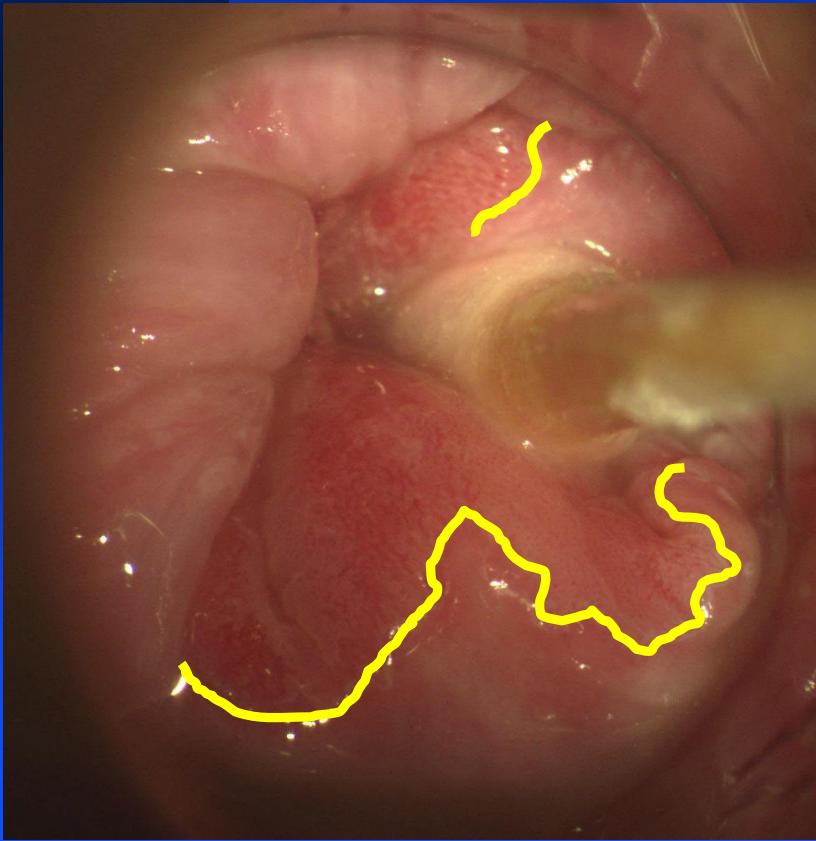


Acetowhite Lesion/HSIL (AIN 2-3)



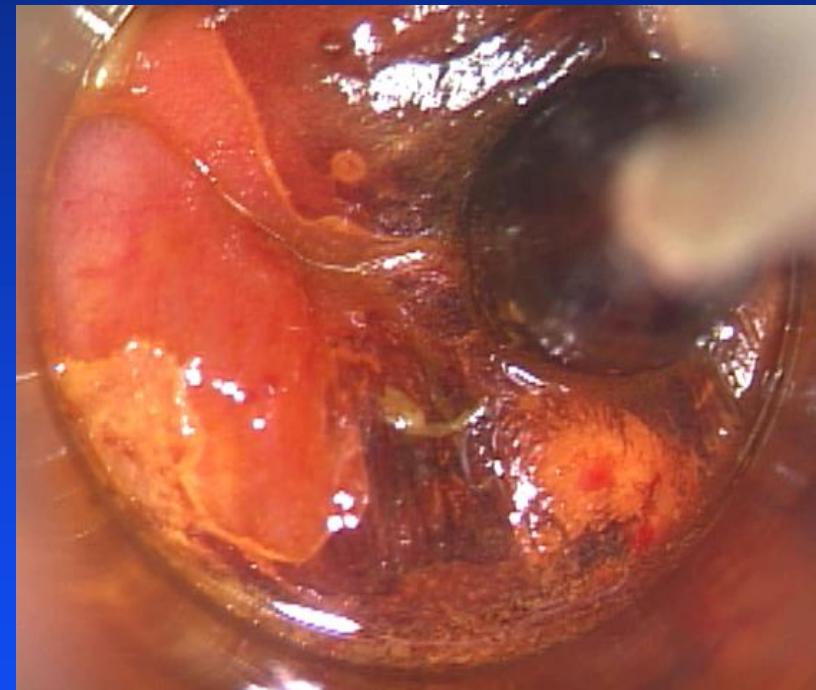
HRA (con't)

12) Manipulate the anoscope and/or use q-tips to thoroughly view entire SCJ.



HRA (con't)

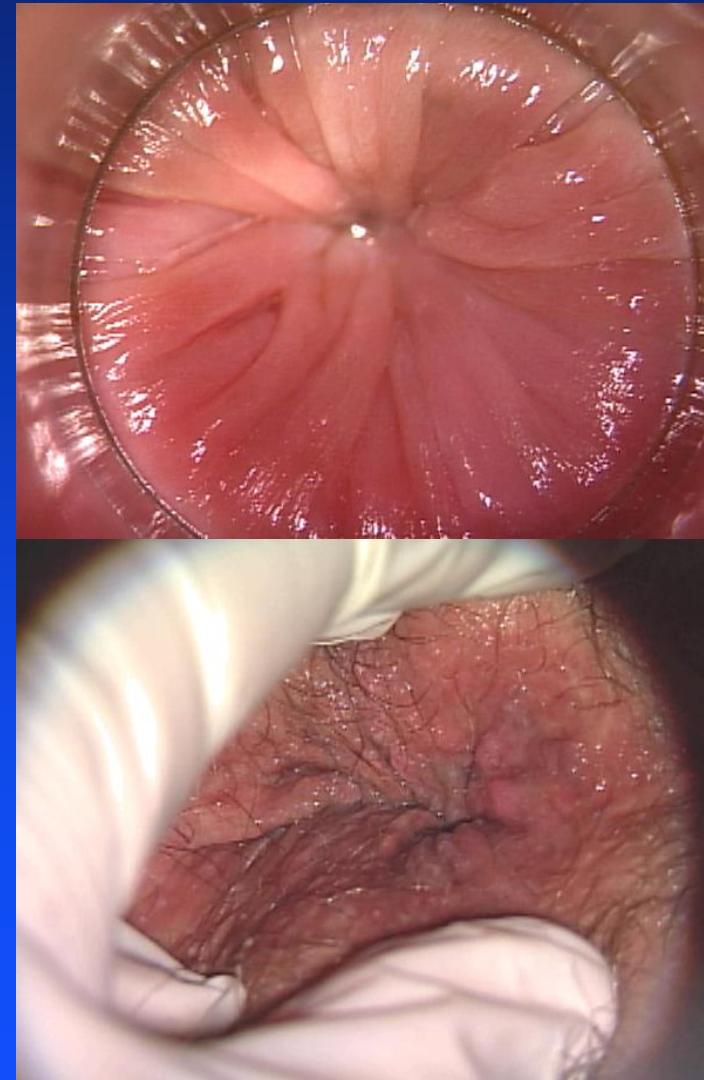
Apply Lugol's solution after identifying all aspects of AnTZ with acetic acid.
Apply sequentially as you observe



HRA (con't)

- Observe the distal anal canal and verge as you withdraw the anoscope.

- Wipe off lube, apply vinegar to perianal region and examine on lower power



Summary

- Cytology is a useful quality control measure
- Biopsy all clinically distinct areas
- Examine the entire anal canal and perianal area systematically
- Anesthetize areas at or distal to the dentate line
- Take small-size bites to avoid extensive bleeding
- Practice practice practice!!

Concluding Words

- HRA can be challenging, even for the clinician experienced in cervical colposcopy.
- Like cervical colposcopy expertise develops overtime.
- Practice, practice, practice!!!!