

# **DISEASES OF THE COLON, RECTUM, & ANUS**

**Rocco Ricciardi, MD, MPH**

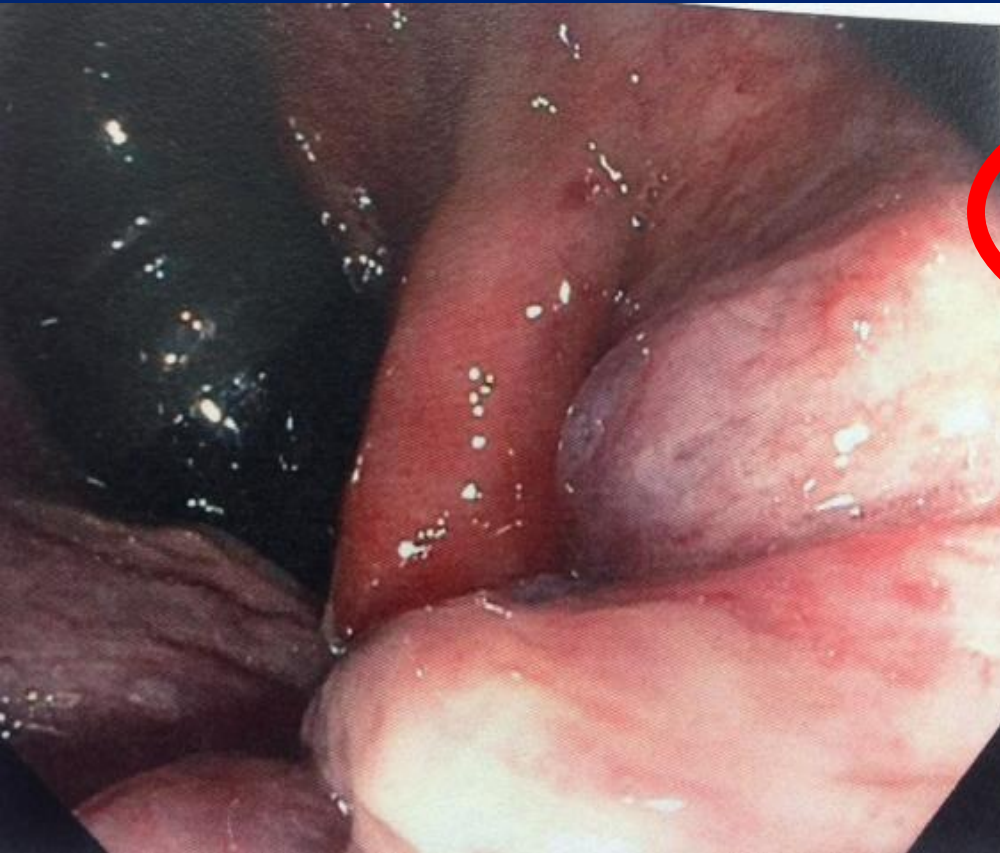
**Chief, Section of Colon & Rectal Surgery**

**Massachusetts General Hospital**

**Associate Professor of Surgery**

**Harvard Medical School**

# CASE 1



- Hemorrhoid
- Prolapsed mucosa
- Cancer

# INTERNAL VS. EXTERNAL

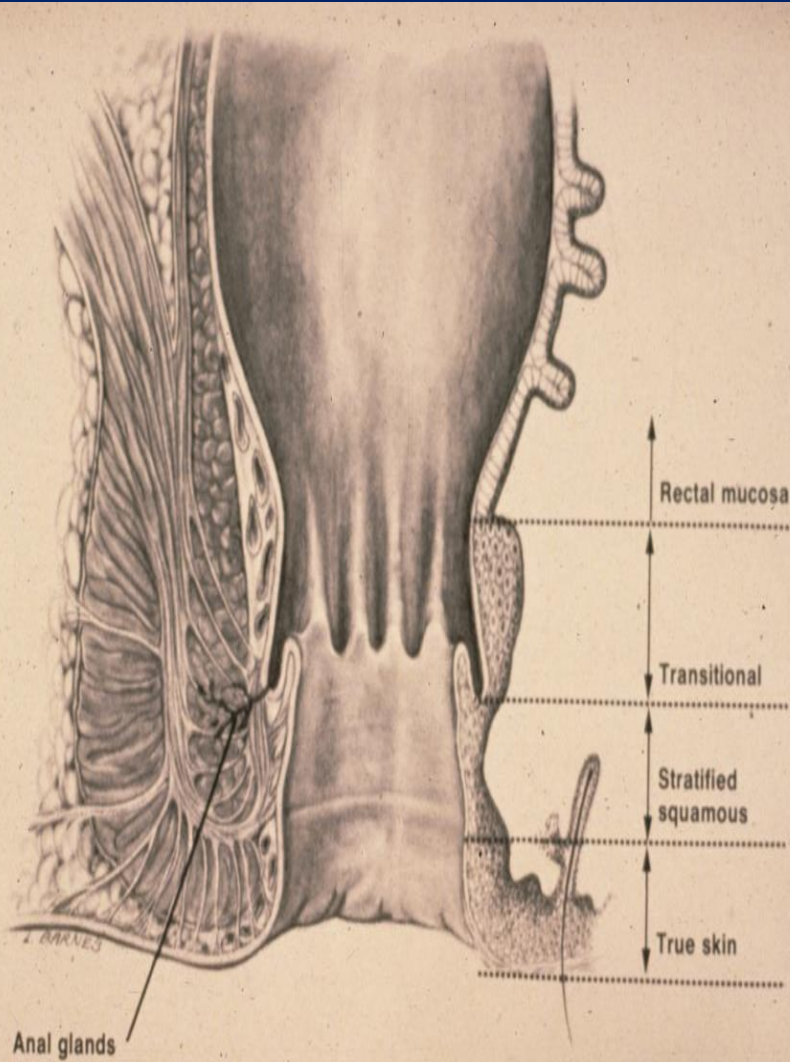


Figure 12-1. Anatomy of the anus.

# EXTERNAL HEMORRHOIDS



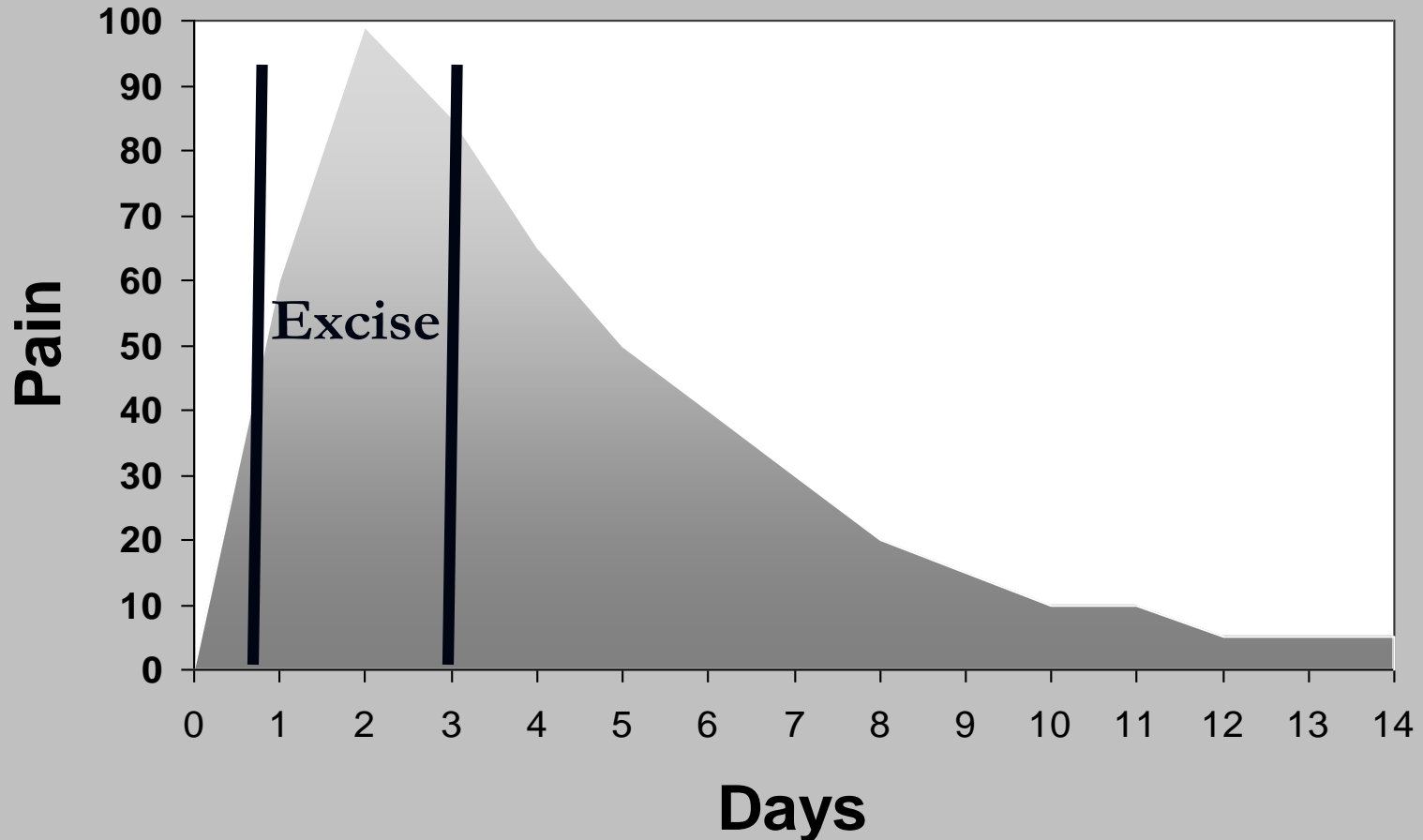
**Innocent**



**External Hemorrhoid**

**Thrombosed**

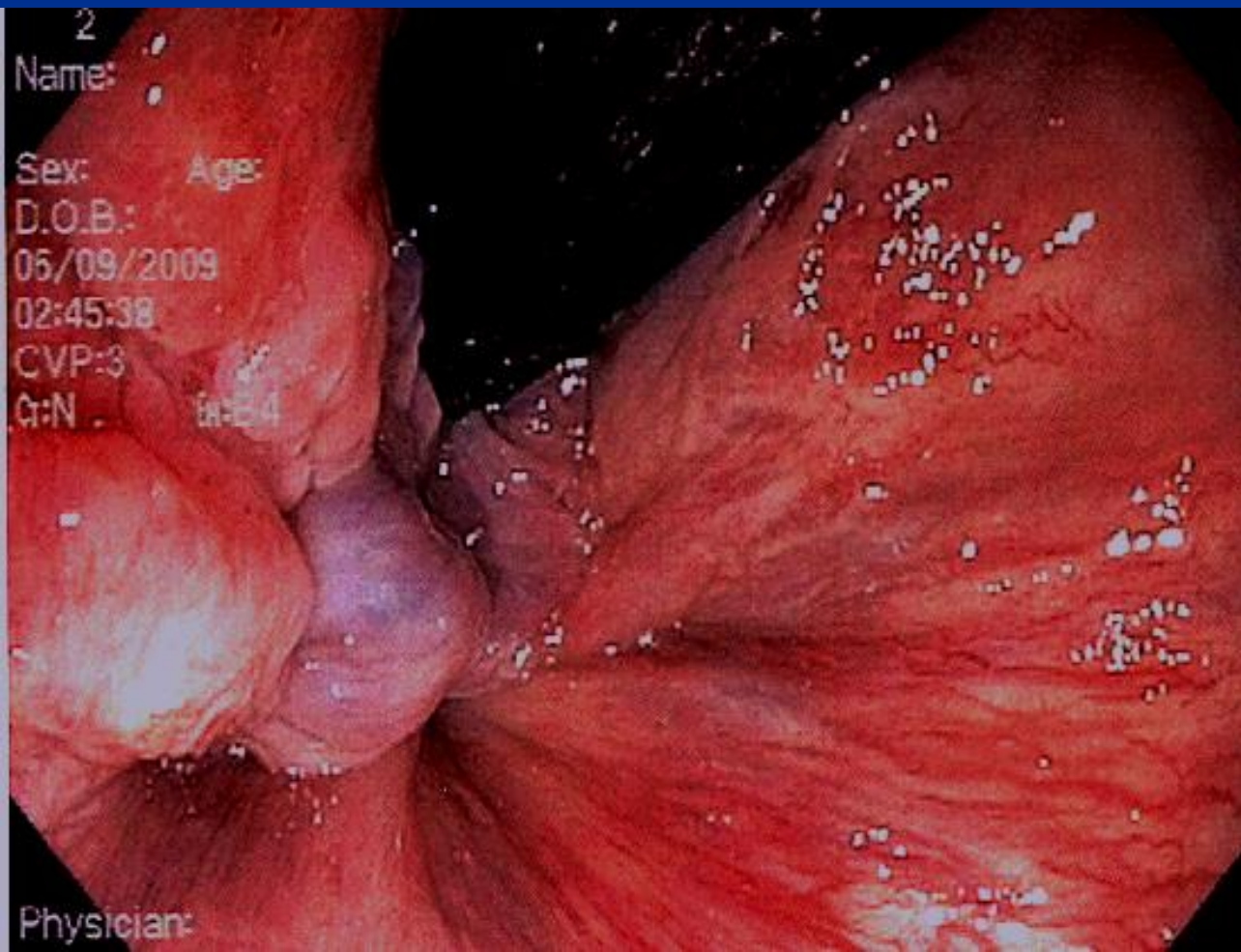
# THROMBOSED EXTERNAL HEMORRHOID



# **INTERNAL HEMORRHOIDS** **OFFICE MANAGEMENT**

- **Fiber and sitz baths**
- **Rubber band ligation**
- **Infrared coagulation**
- **Injection therapy**
- **Doppler-guided hemorrhoidal artery ligation**

# INTERNAL HEMORRHOIDS



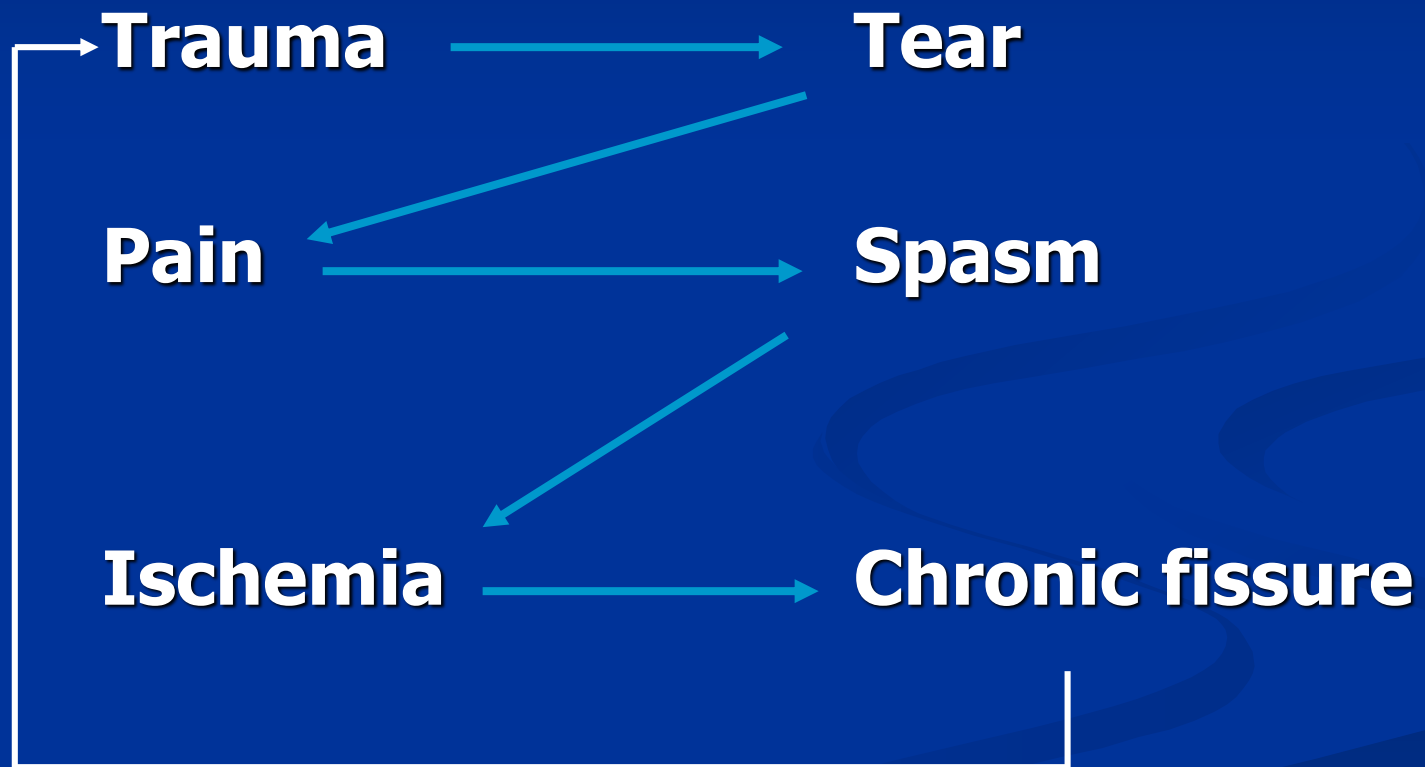
# CASE 2

- **Symptoms**
  - **Pain**
  - **Bleeding**





# FISSURE: PATHOPHYSIOLOGY



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irregular stools



tearing of anal lining



anal hypertonia

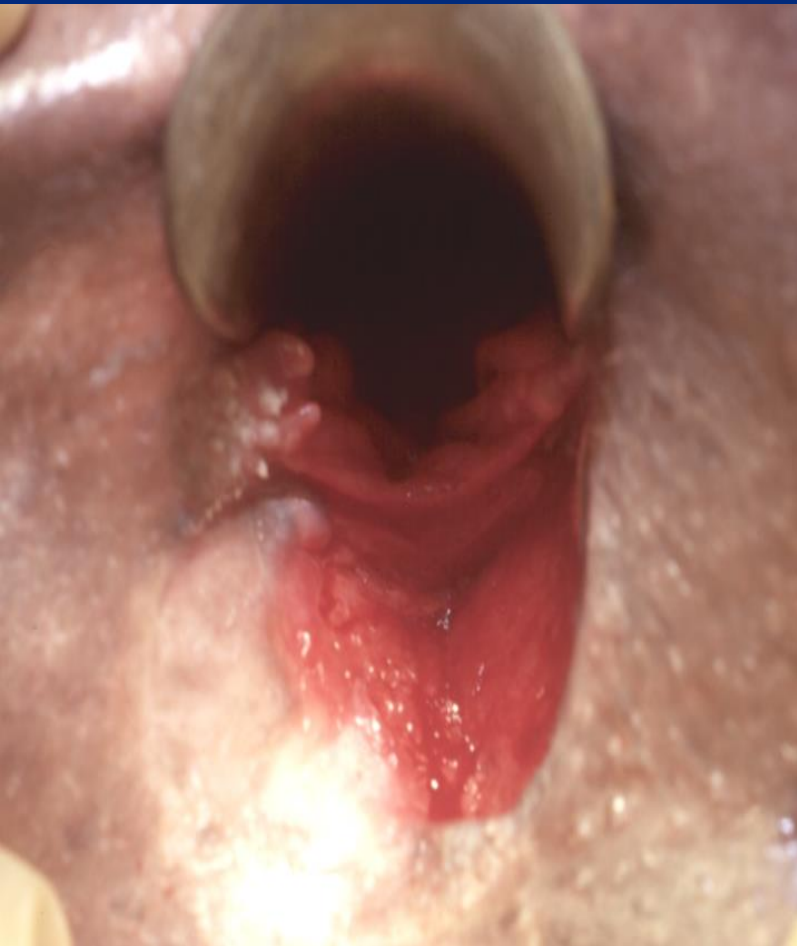


reduced anodermal perfusion



ischemic (!) ulcer

# ANAL FISSURE



- **Location & appearance**
  - **Idiopathic**
- **Atypical**
  - **Crohn's disease**
  - **Malignancy**
  - **Tuberculosis**
  - **Syphilis**
  - **CMV**
  - **HIV**
  - **Trauma**

# **ANAL FISSURE TREATMENT**

- **First line treatment**
  - **Fiber and sitz baths**
- **Topical**
  - **Nitroglycerine**
  - **Diltiazem**
- **Injectable**
  - **Botulinum toxin**
- **Surgical sphincterotomy**
  - **Same day surgery**

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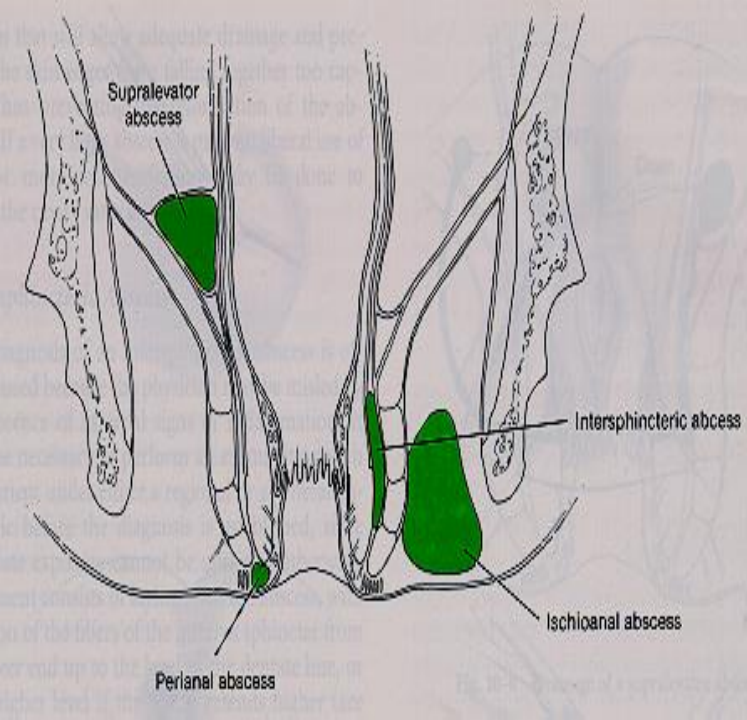
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DR. MURRA SACA

# CASE 3

# ABSCESS/ FISTULA



- **Incidence 12.3/100,00 (men), 5.6/100,000 women**  
*Sainio. ACG 1984;73:219.*
- **Peak incidence 3<sup>rd</sup> & 4<sup>th</sup> decade**  
*Ramanujam. DCR 1984;27:593.*
- **Symptoms**
  - Pain
  - Swelling
  - Fever
- **Etiology?**

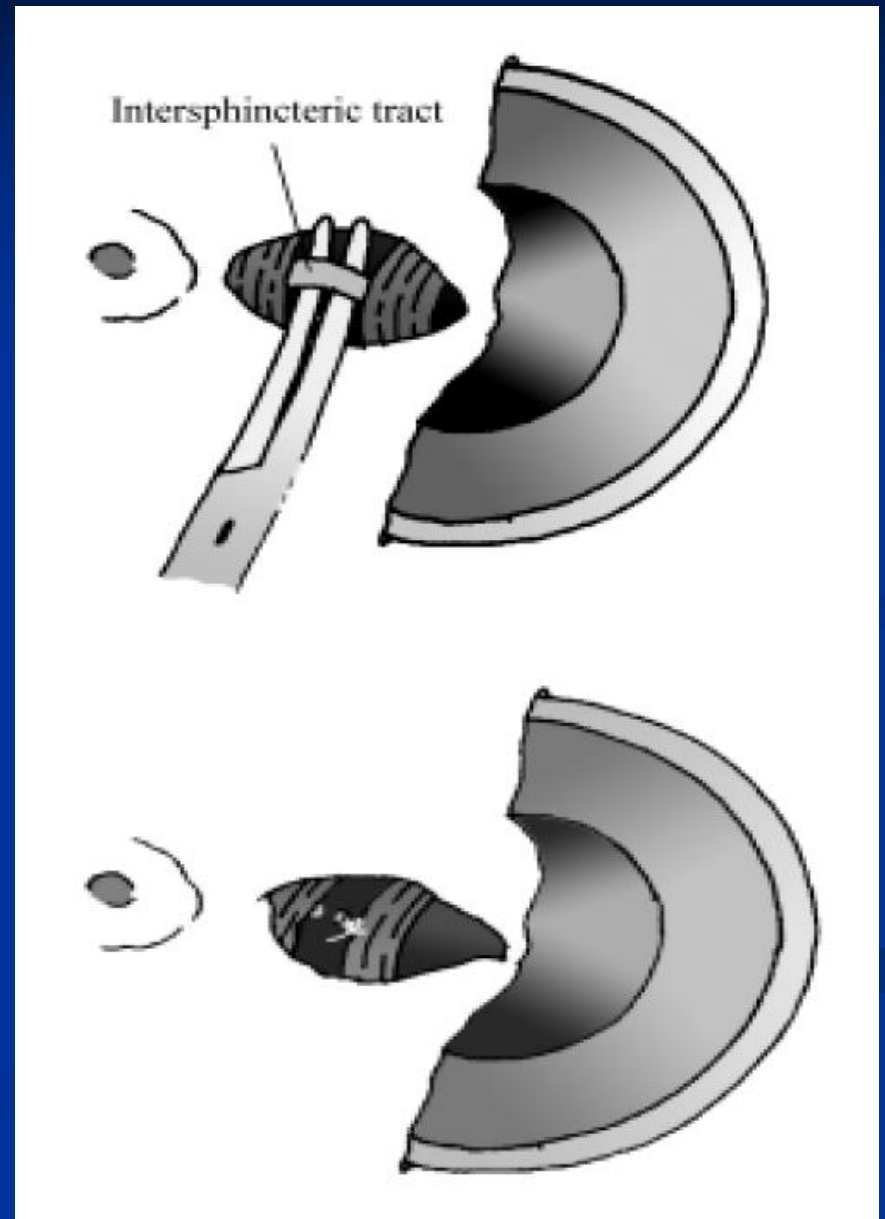
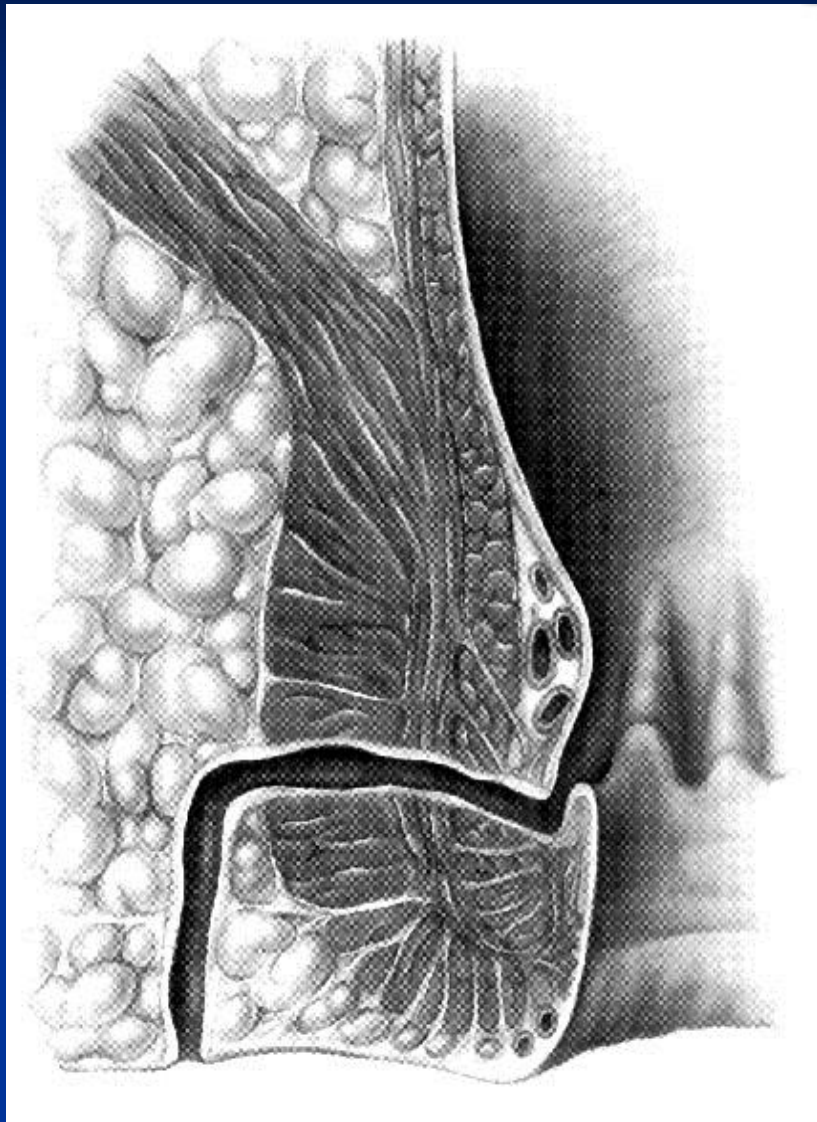
# CONTINENCE

**FIBRIN GLUE**

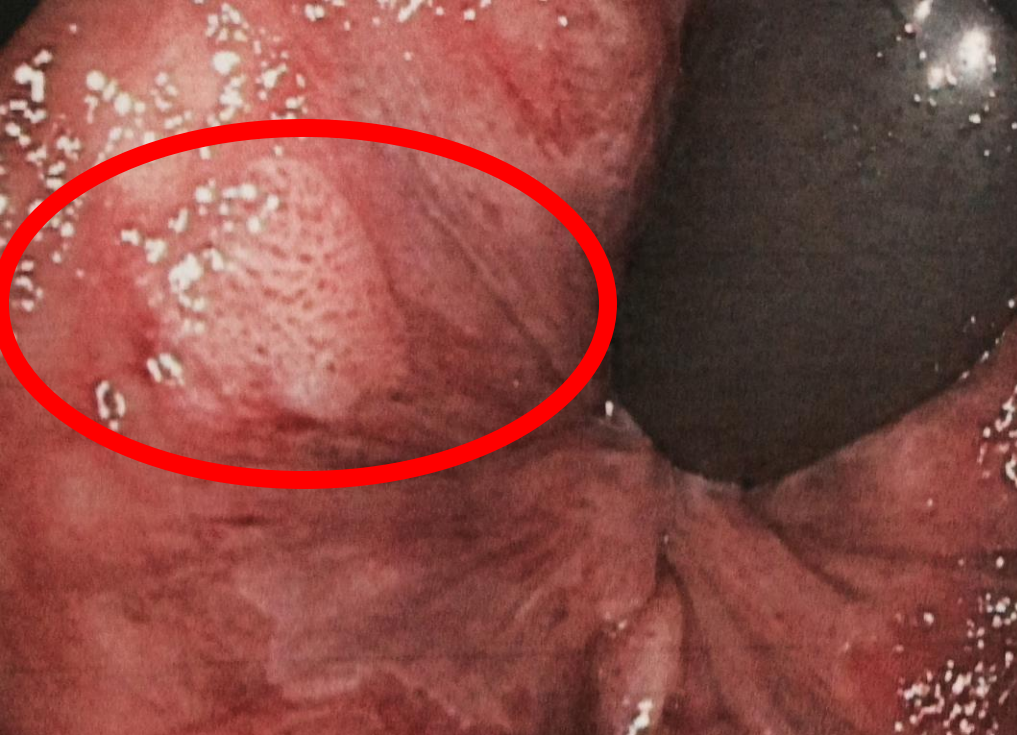


**FISTULA PLUG**

# LIFT





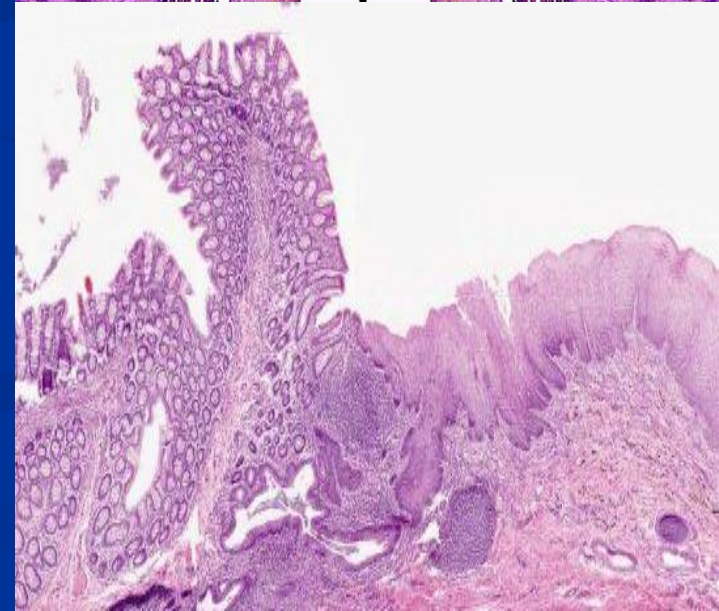
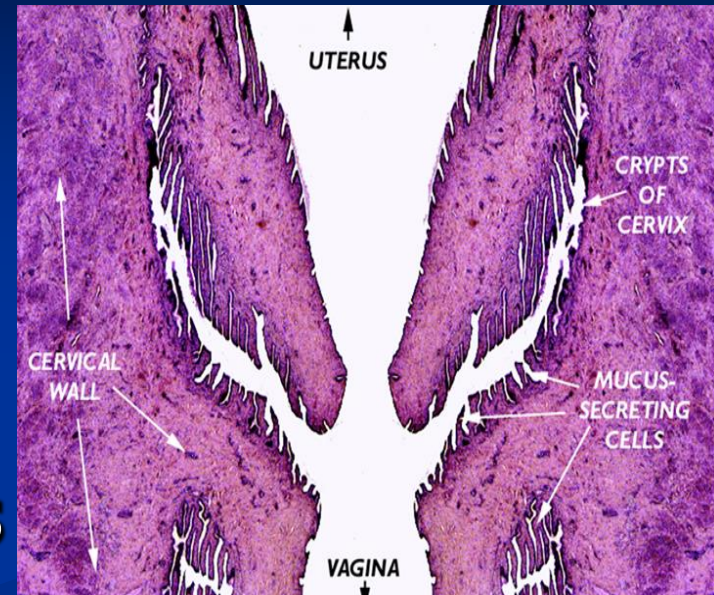


## Case 4

- 45 y.o. male presents for routine colo
- PMHx: None
- Colonoscopy: lesions at ATZ (biopsied)

# HPV: CERVIX AND ANUS

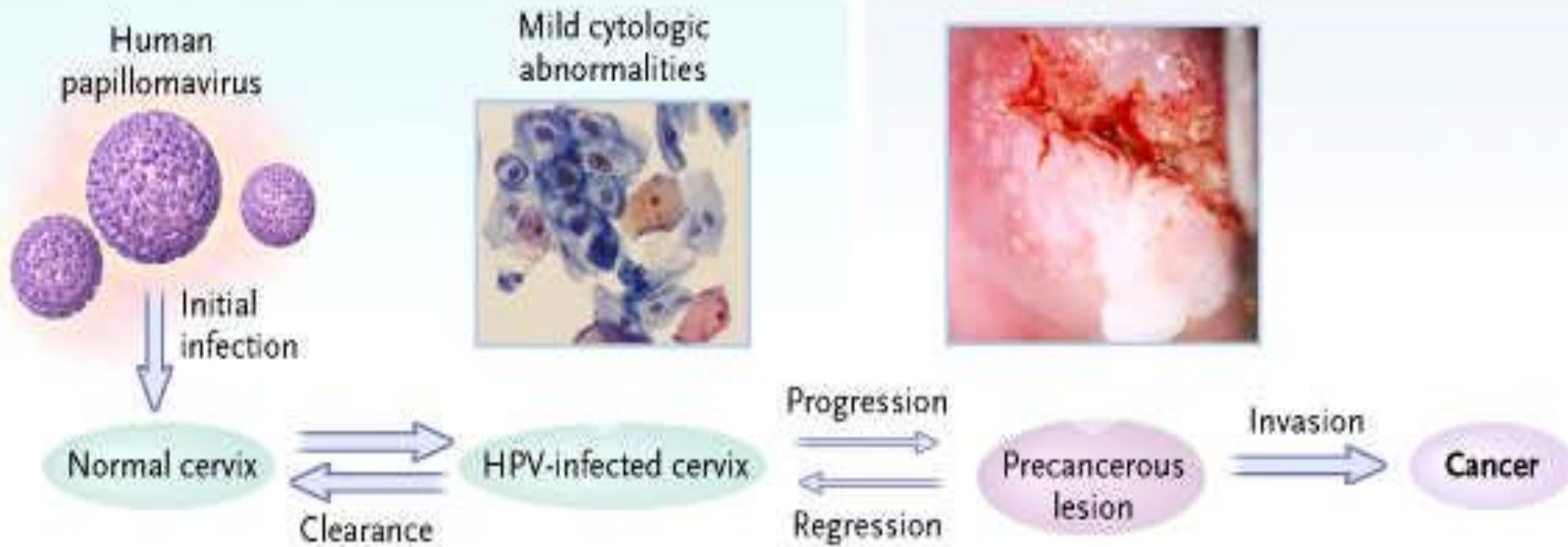
- Analogous to the cervical transformation zone
- Immature squamous cells
  - Squamo-columnar junction
  - Susceptible to HPV



# HPV INFECTION

## Transient Infection

## HPV Viral Persistence



**Low risk and high risk HPV**

**High risk HPV**

# DYSPLASIA PROGRESSION

Surface of epithelium								
Basal membrane								
<i>Cytology</i>	Normal	Low-Grade SIL			High-Grade SIL			Invasive cancer (penetrates basal membrane)
<i>Histology</i>		Condy-lomatous atypia	CIN 1		CIN 2	CIN 3		
<i>Description</i>			Very mild dysplasia	Mild dysplasia	Moderate dysplasia	Severe dysplasia	Carcino-ma <i>in situ</i>	
<i>HPV presence</i>	HPV low-risk types HPV high-risk types				HPV high-risk types			

# PROGRESSION OF DISEASE



# HPV VACCINE: ONE LESS

- **Anal warts**

**6, 11, 30, 42, 43, 44, 45, 51, 52, 54**

- **Anal cancer**

**16, 18, 31, 33, 35, 39, 45, 51, 52, 56,  
58, 59, 68, 73, and 82**

- **HPV Vaccine contains**

**6, 11, 16, 18**

# ANAL CANCER RX

- **Combo therapy**
- **Excellent results**
- **2.5% have surgery**
- **No colostomy**

# CONSEQUENCES ANAL CANCER RX

- **Incontinence**
- **Pruritis**
- **Bleeding**
- **GU issues**

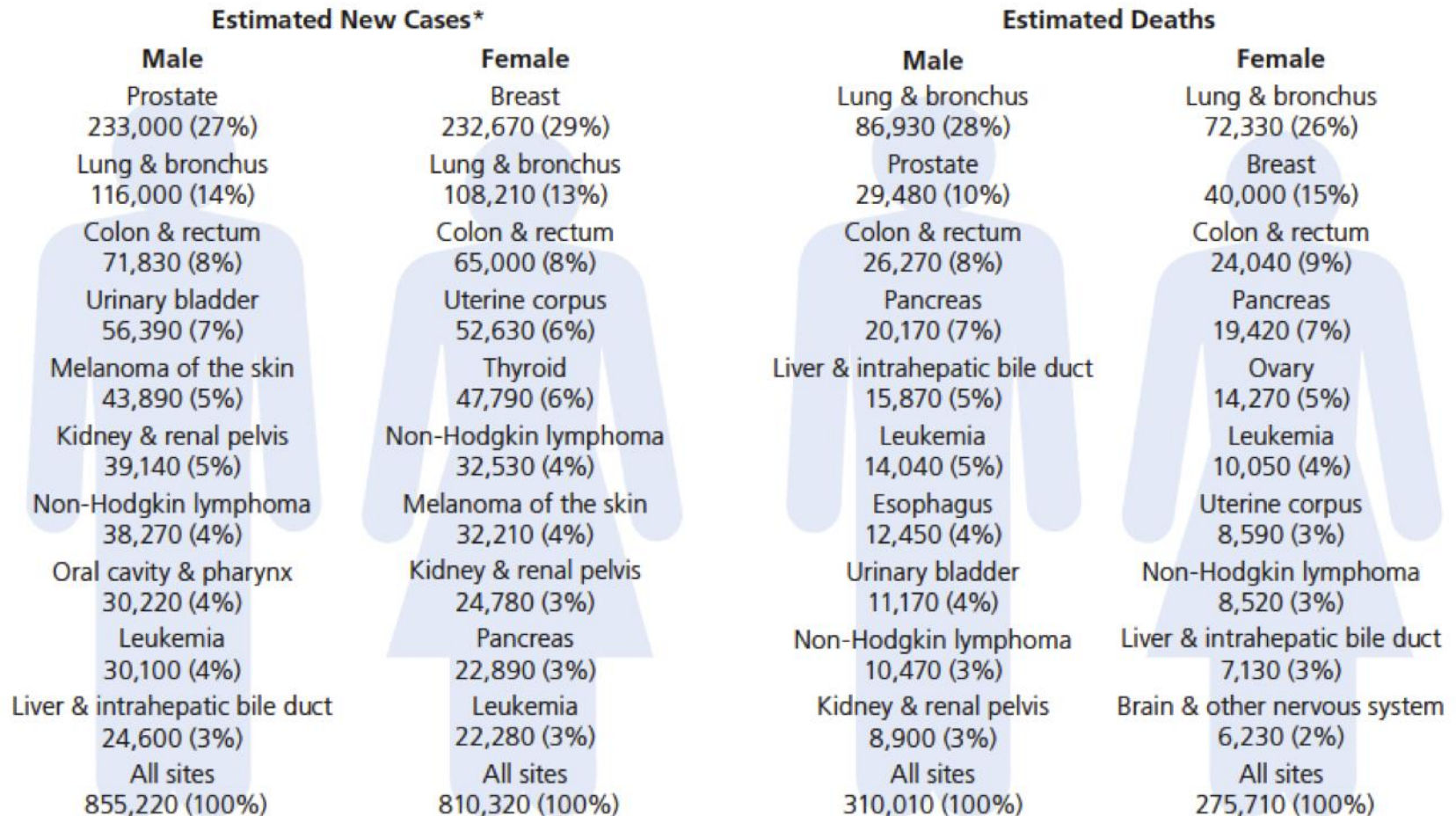


# CASE STUDY

- **45 y.o. male presents for with rectal bleeding**
- **PMHx: None**
- **Colonoscopy: Mid rectal mass**

# RECTAL CANCER

## Leading New Cancer Cases and Deaths – 2014 Estimates



\*Excludes basal and squamous cell skin cancers and in situ carcinoma except urinary bladder.

# COLORECTAL CANCER



*Dr. Bert Vogelstein*

# COLONOSCOPY

<u>Intervention</u>	<u>Cost/yr life saved</u>
Motorcycle helmets	\$2,000
Colorectal Cancer Screen	\$25,000
Breast Cancer Screening	\$35,000
Dual Airbags	\$120,000
Smoke detectors	\$210,000
Seat Belts in School Buses	\$2,800,000

# RECTAL CANCER

- **Prior approach**

- Surgeon referral
- Open surgery
- Colostomy
- Postop  
chemo/rads

- **Today**

- Extensive w/u
- MDT
- Preop chemorads
- ? Surgery
- Keep your anus

# **ABDOMINOPERINEAL RESECTION**

**Described by Sir Ernest Miles  
1908**

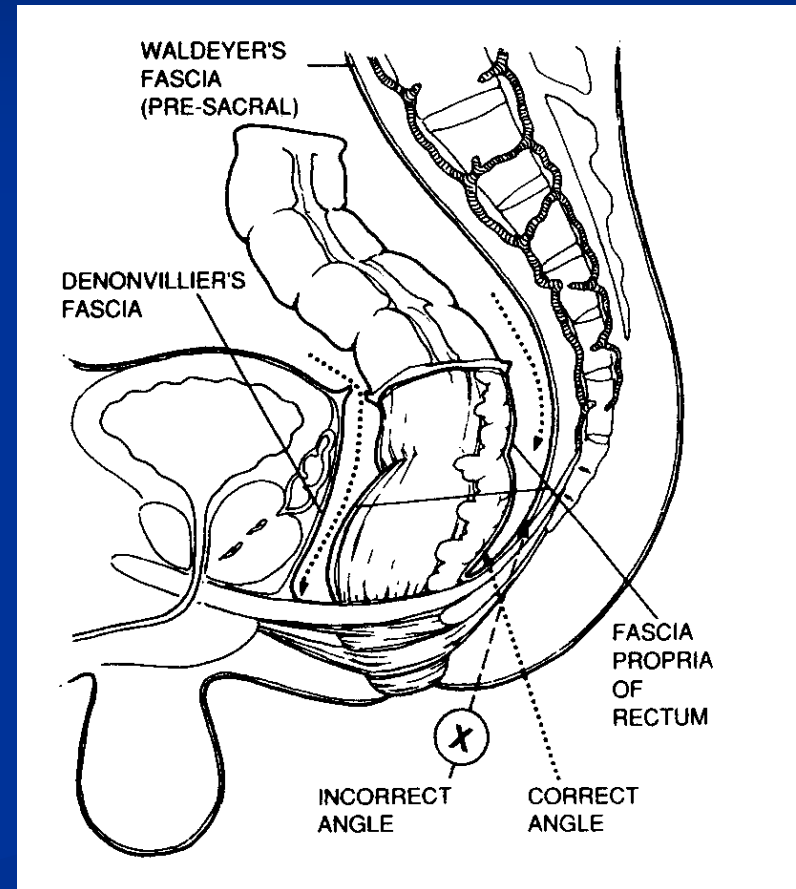
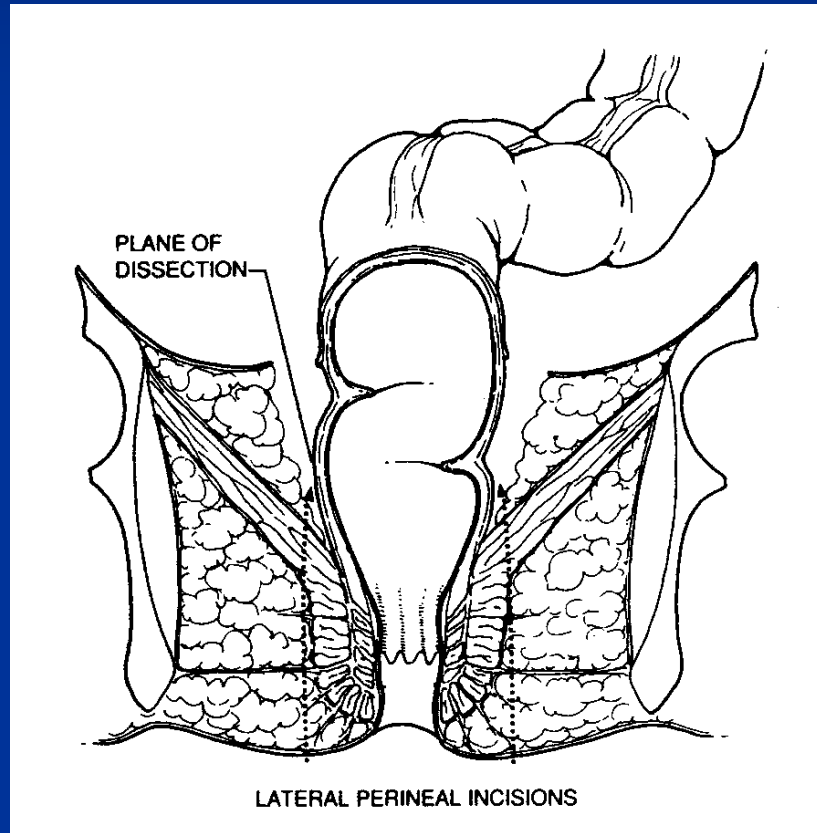
**1-2 surgeons**

**TME rectal dissection**

**Anus sutured closed**

**Wide perineal dissection**

# SURGERY



# LOCAL EXCISION

- **TEMS**
- **TAMIS**
- **Developed for lesions out of usual reach**
- **Can be used for benign and malignant lesions**



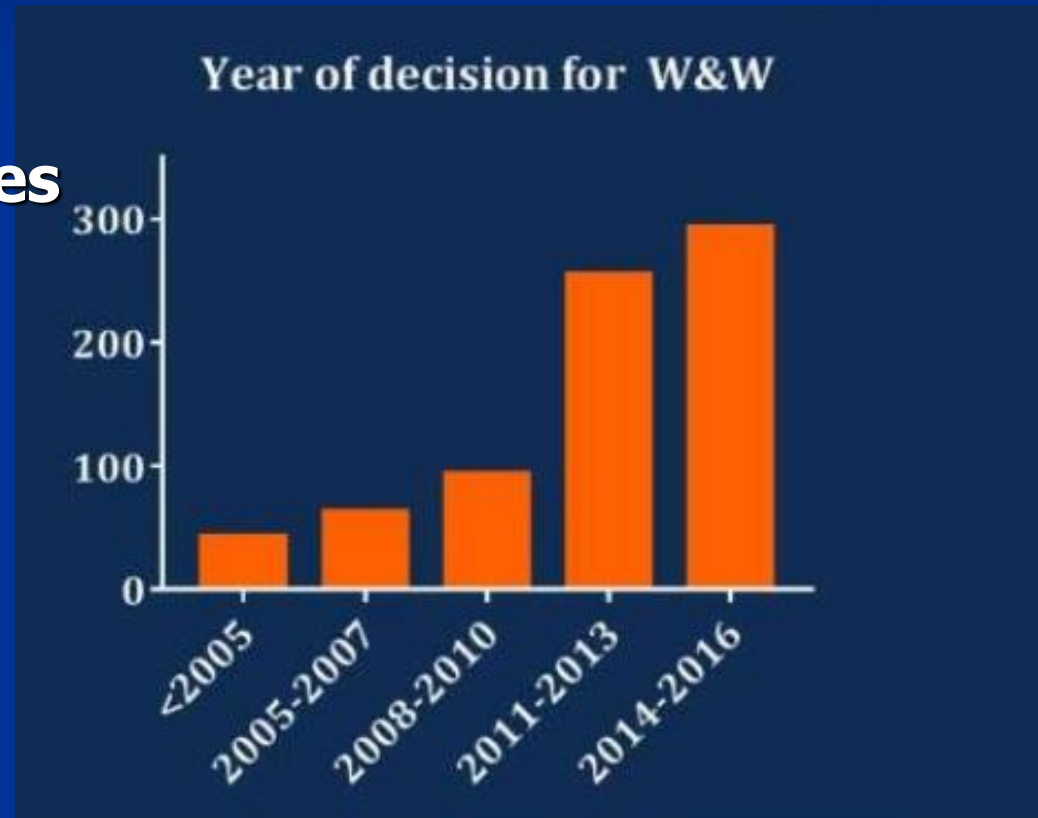
# PATIENT CONCERNS

Concern	3 months	9 months	15 months	24 months
1	Urinary frequency (48%)	Impotence (51%)	Impotence (47%)	Impotence (45%)
2	Impotence (47%)	Urinary frequency (37%)	Urinary frequency (32%)	Urinary frequency (24%)
3	Fatigue (38%)	Fatigue (33%)	Bowel issues (24%)	Fatigue (24%)
4	Insomnia (26%)	Bowel issues (26%)	Fatigue (23%)	Bowel issues (22%)
5	Bowel issues (25%)	Flatulence (23%)	Flatulence (22%)	Flatulence (20%)

*Data from ColoRectal Wellbeing (CREW) cohort study*

# WATCH & WAIT

- **35 participating institutes**
- **11 countries**
- **> 800 patients**



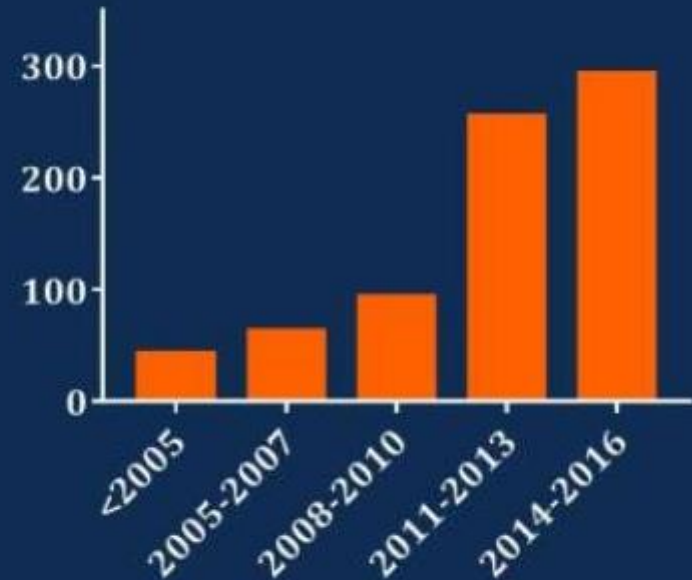
# CAN WE AVOID SURGERY?

35 participating institutes , from 11 countries

Now 802 patients included

679 cases with reason for inclusion:  
clinical complete response

Year of decision for W&W



PRESENTED AT 2017 Gastrointestinal Cancers Symposium | #GI17

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# CONCLUSIONS

- **Many simple remedies for anorectal dx**
- **Minimally invasive techniques**
  - **Robotic**
  - **Transanal**
- **Many cancers now treated nonop**
  - **Reduce consequences**