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# KARKONIS

Greek for crab/lobster

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# COLORECTAL CANCER

- -Screening
  - -Anatomy
  - -Staging
  - -Natural history
  - -Treatment
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# 2025 USA CANCER

2 million new USA cases of malignancy

620,000 new USA deaths from cancer

107,000 new USA cases of colon Ca

47,000 new USA cases of rectal Ca

55,000 new USA colorectal deaths

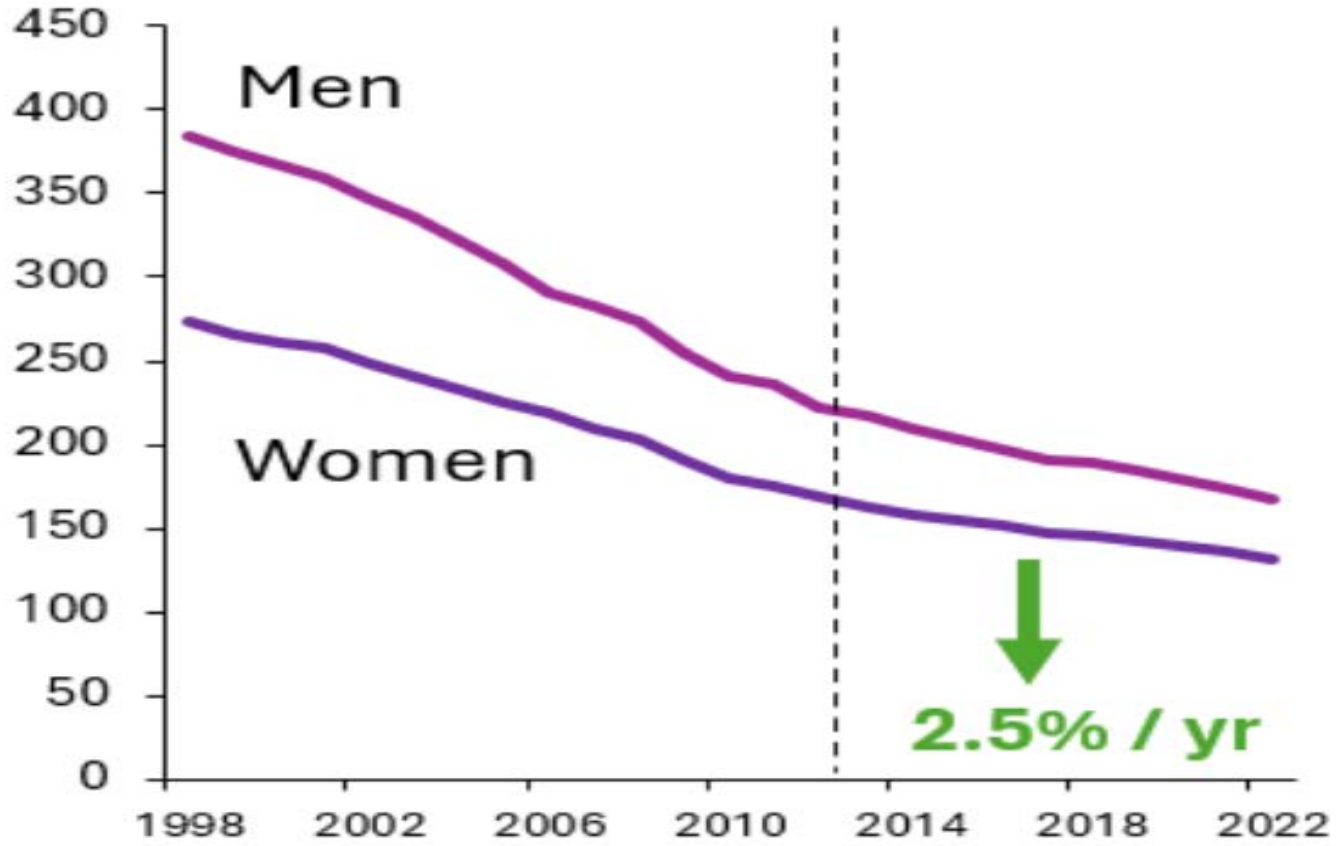
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# TRENDS

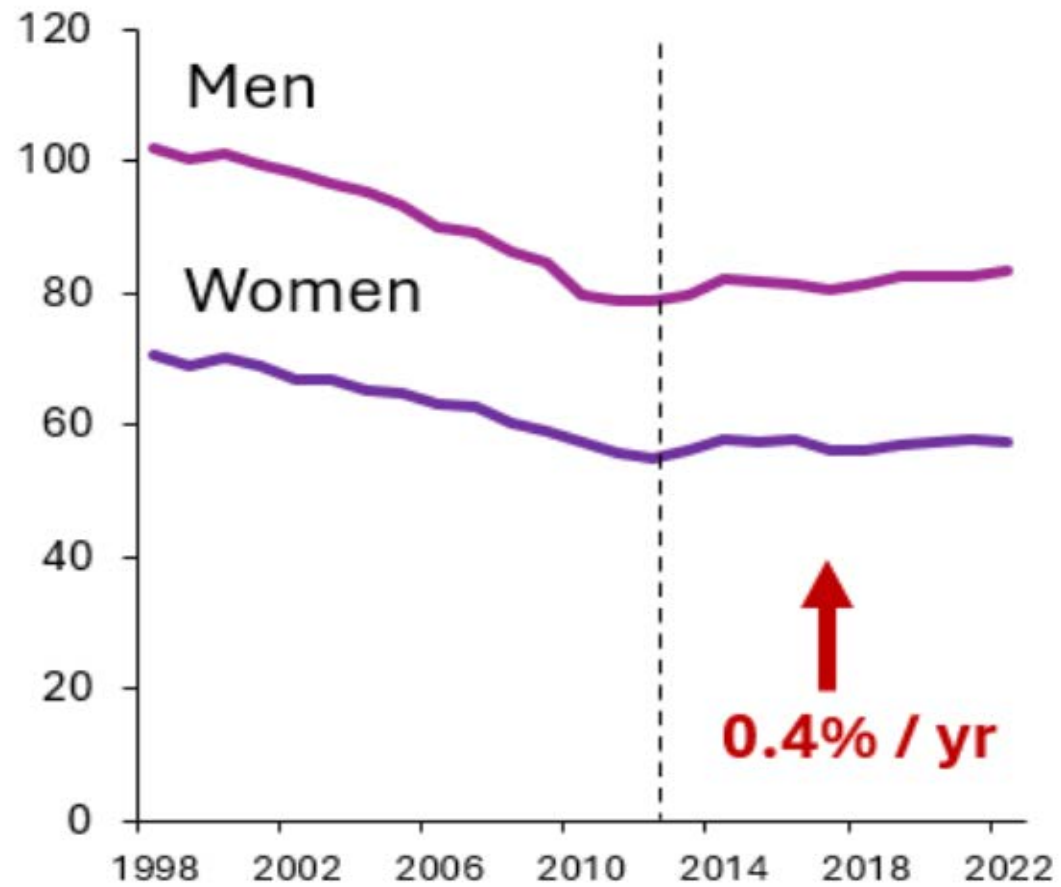
- incidence falling people > 65 yo (screening)
  - incidence increasing 2.5%/yr people under 50 yo
  - 2<sup>nd</sup> leading cause of cancer deaths USA
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**65+ years**



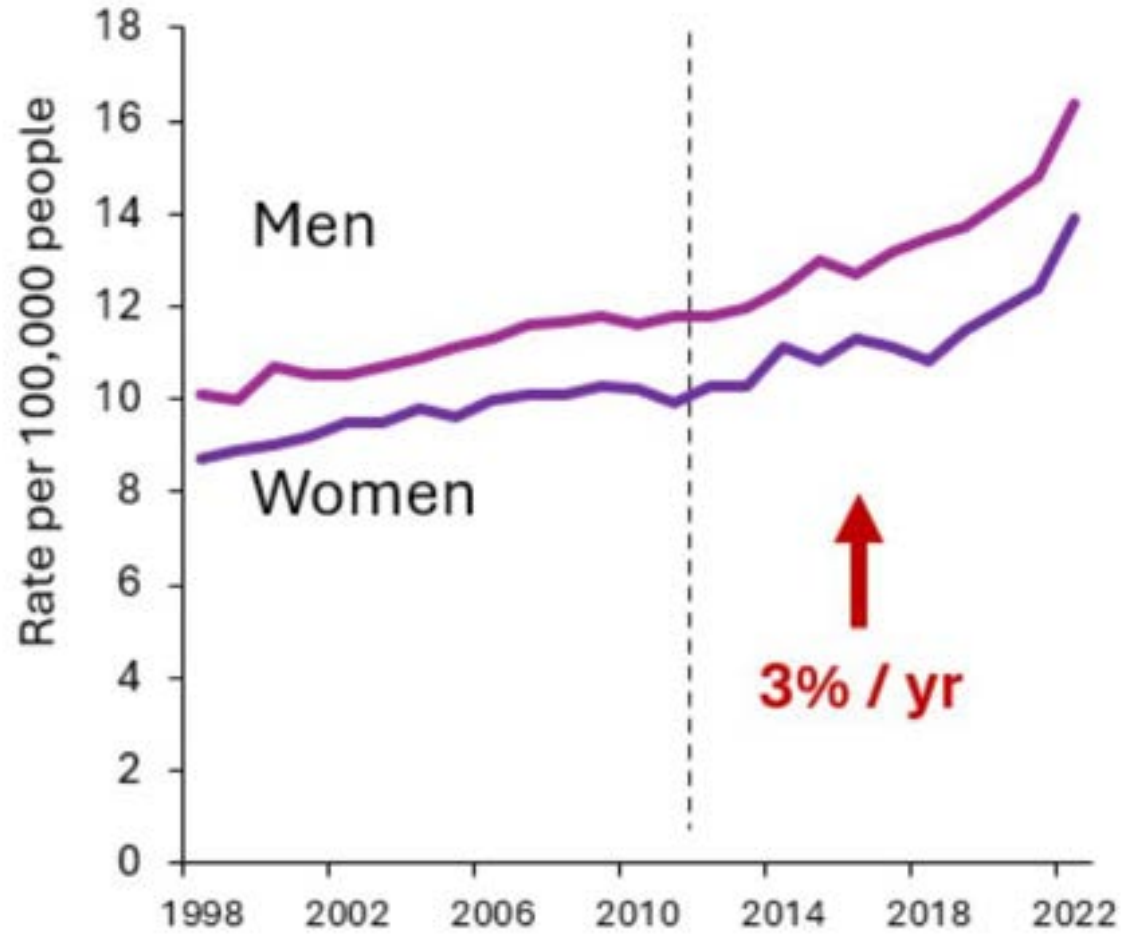
Efficacy of screening

## 50-64 years



Concerning trend

## 20-49 years



Alarming trend

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# POSSIBLE CAUSES OF UPWARD TREND

-increasing BMI wt/ht

-1960 BMI 13/100

-2025 BMI 50/100

-environmental chemicals/toxins

-lifestyle

-EtOH

-lack of physical activity

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# SCREENING

-High enough predictive value

-ie, Is it accurate

-Pragmatic

-is there benefit (ex ovary, prostate)

Safety ex xerograms for breast cancer screening, risk of endoscopy

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# SCREENING OPTIONS

-virtual colonoscopy

-shield test      83% sensitivity

-Cologuard      92% sensitivity

-sigmoidoscopy

-colonoscopy    95% sensitivity

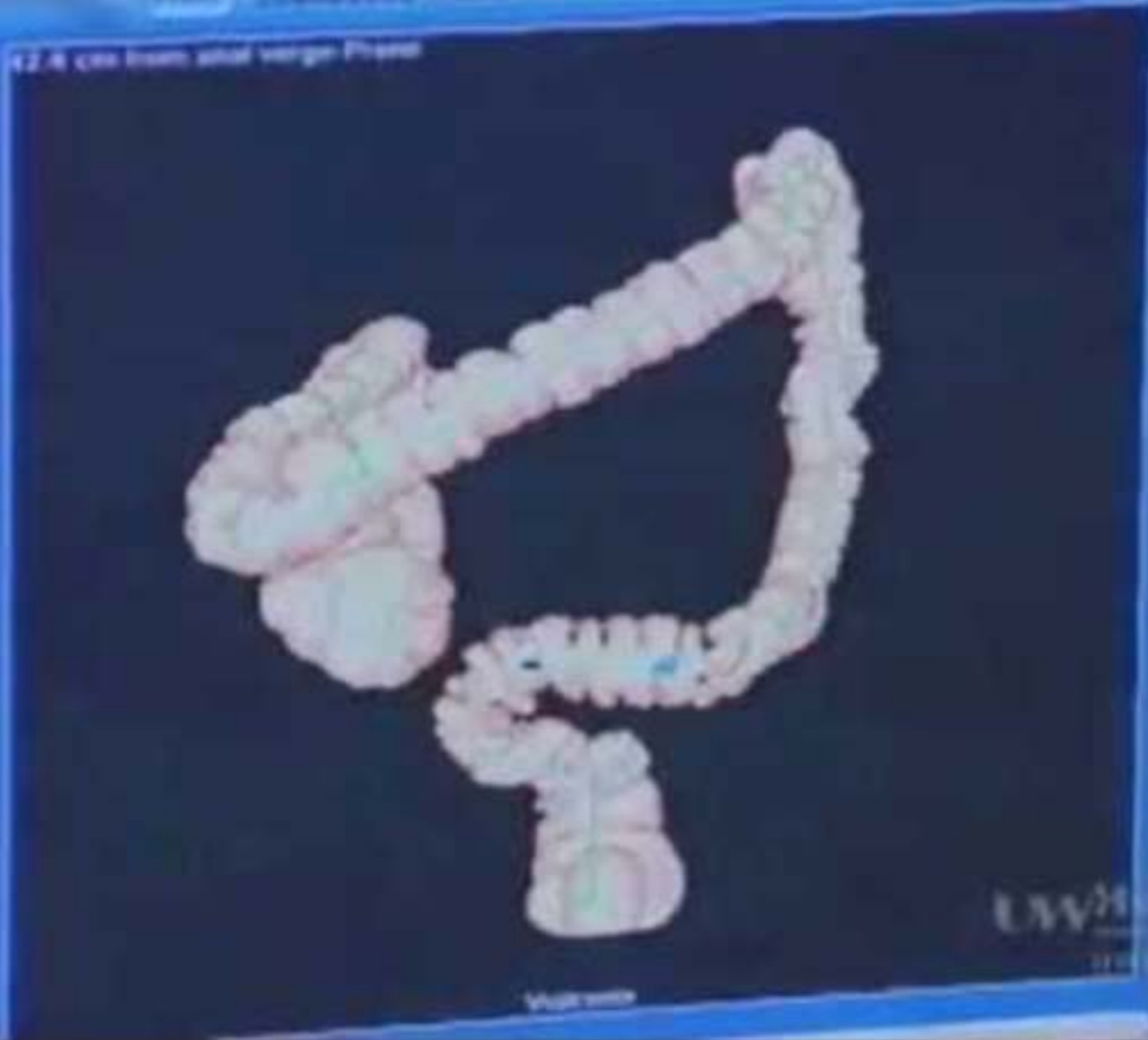
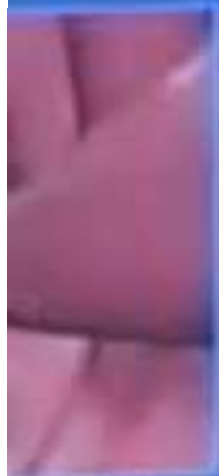
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# VIRTUAL COLONOSCOPY

- need bowel prep
  - requires air insulflation
  - sensitivity as low as 50%
  - nontherapeutic
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42.6 cm from distal verge Phase



UWM

Multiplanar

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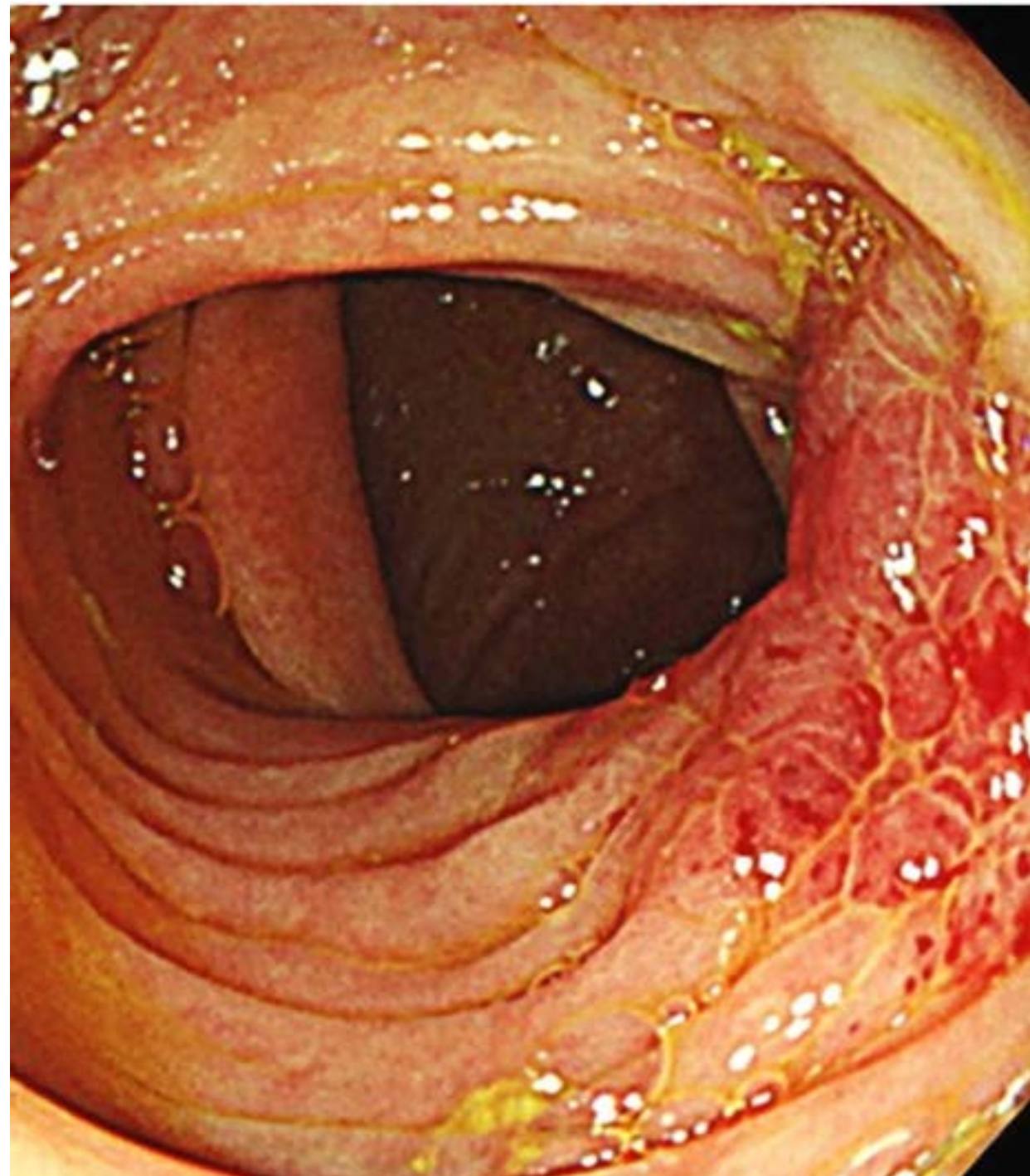
# SCREENING AGE

45 to +/- 70 yo

Many primary care MDs rec colonoscopy as 1<sup>st</sup> screen

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- Flatter,
- infiltrative
- more easily missed on virtual colonoscopy



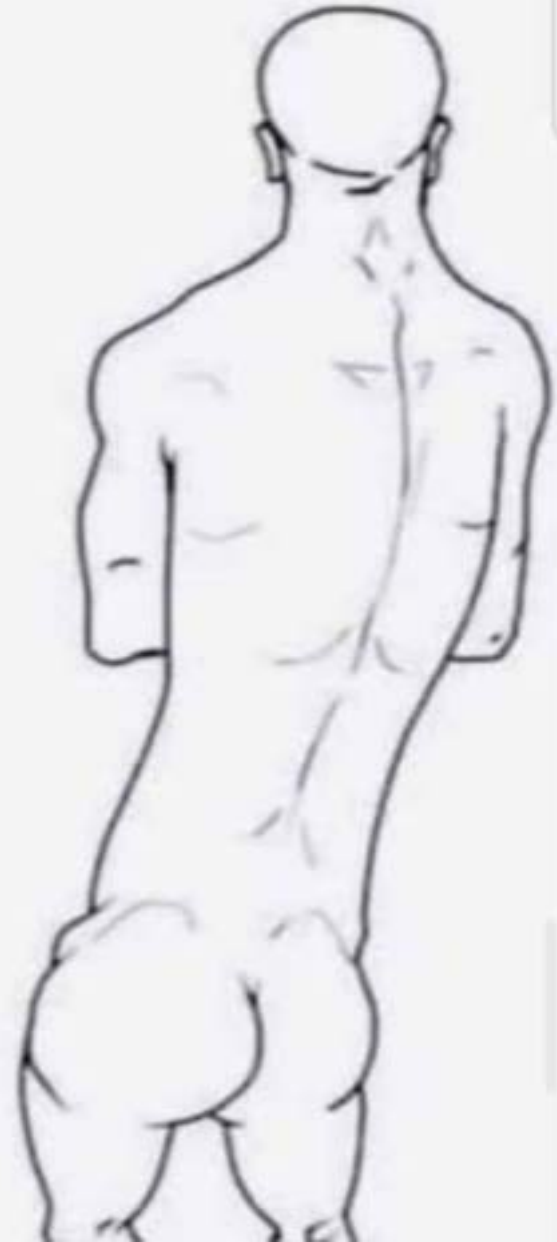
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-exophytic

-bowel obstruction

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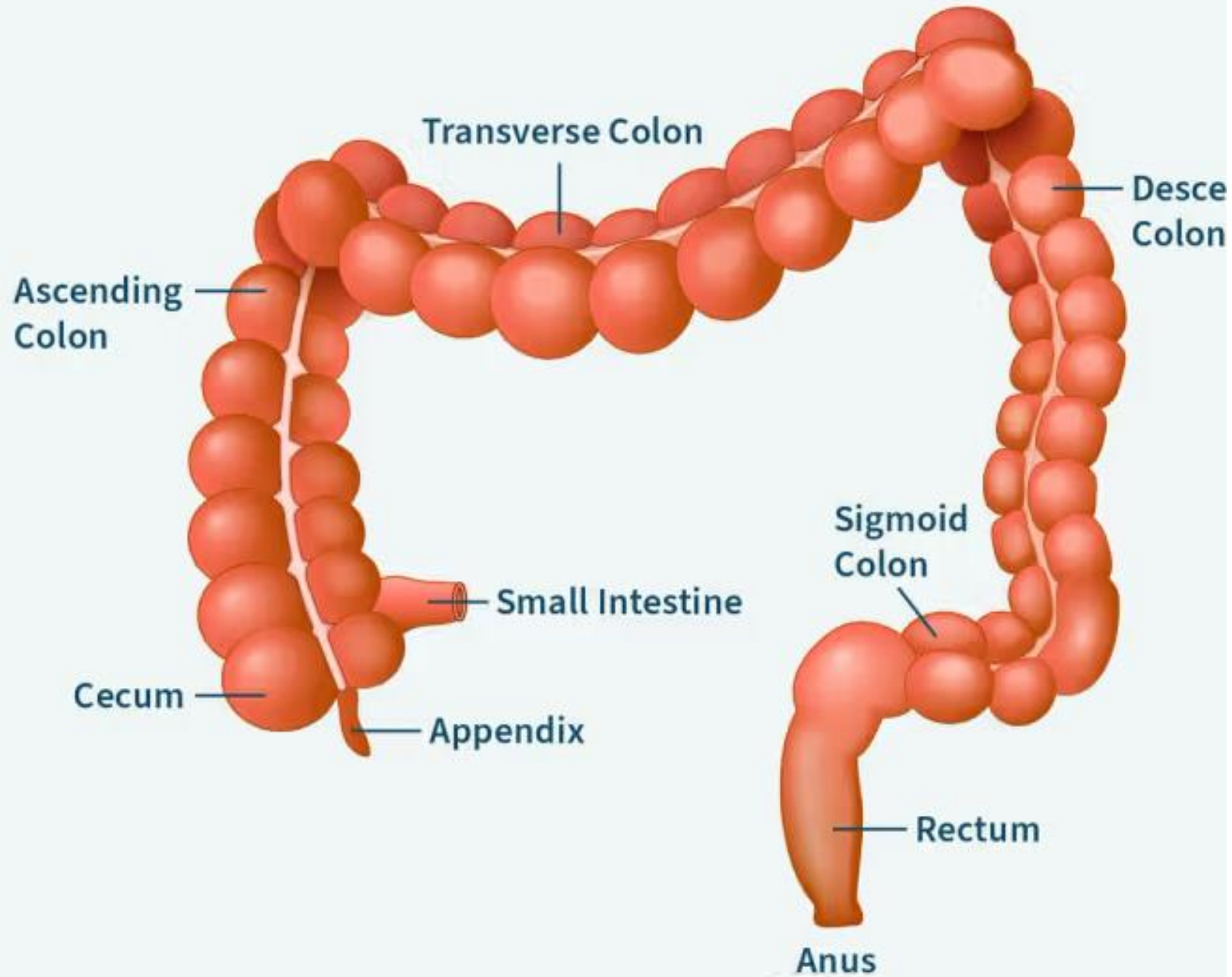


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# ANATOMY

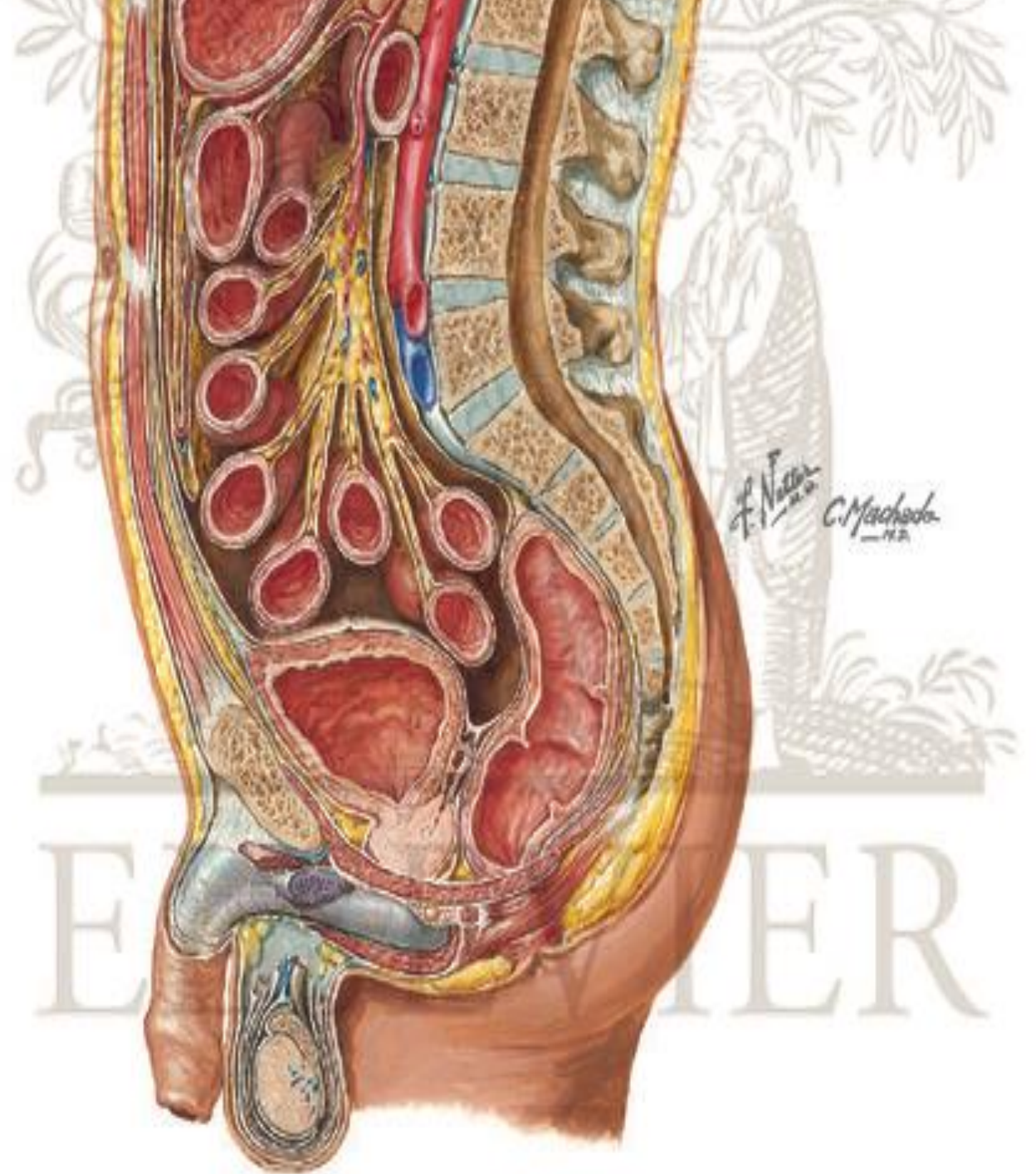
Colon vs rectum

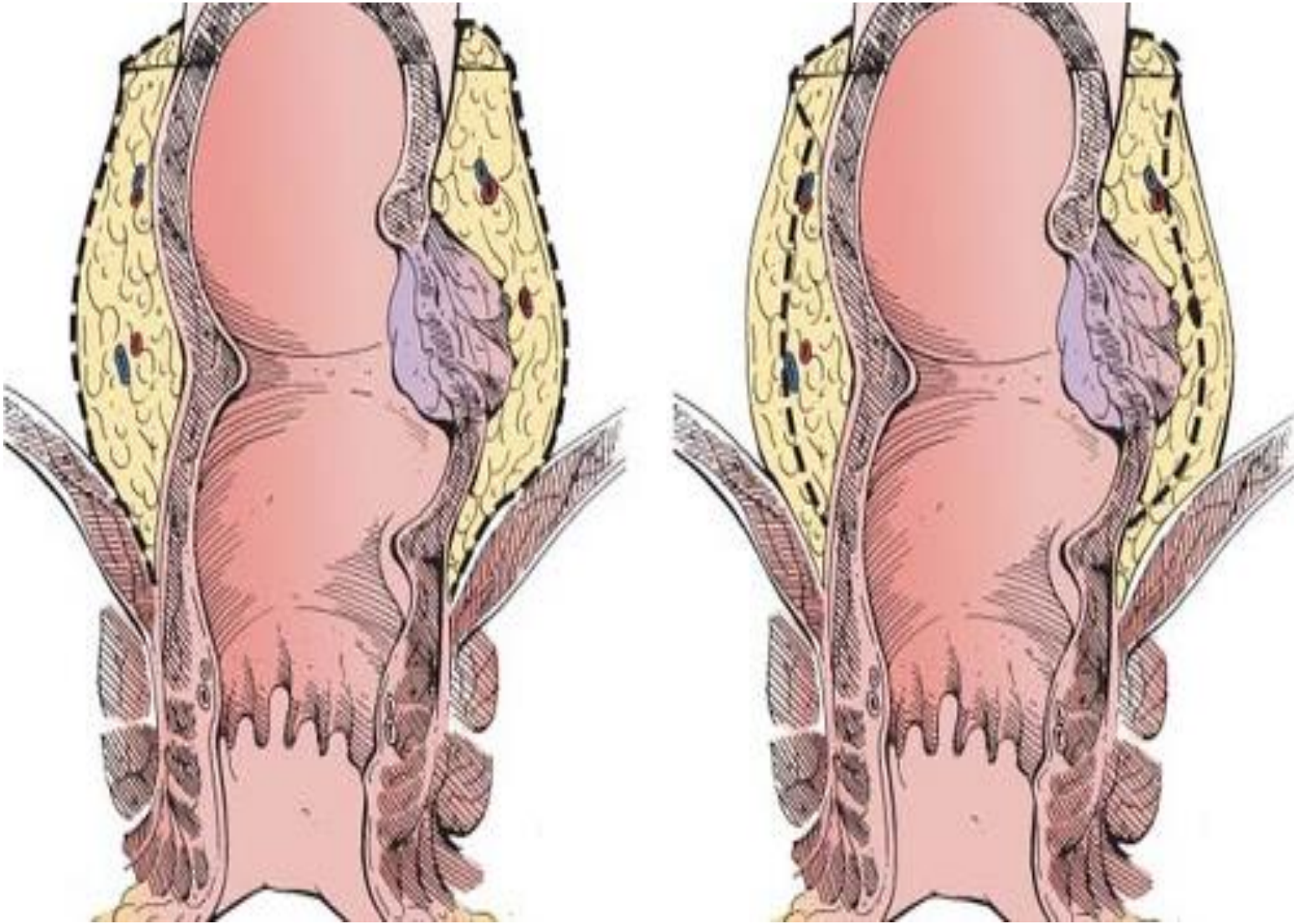
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- -colon is 150 cm long
  - -rectum is 12-15 cm long
  - -rectum is 1/10<sup>th</sup> length
  - -rectum is 1/3<sup>rd</sup> of CRC

-peritoneal reflection





Rectum vs anal canal

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# STAGING

-where is it

and

-where isn't

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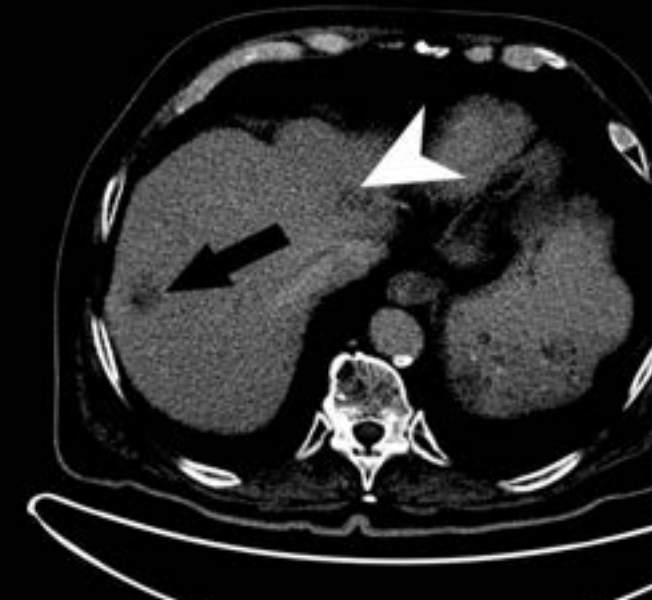
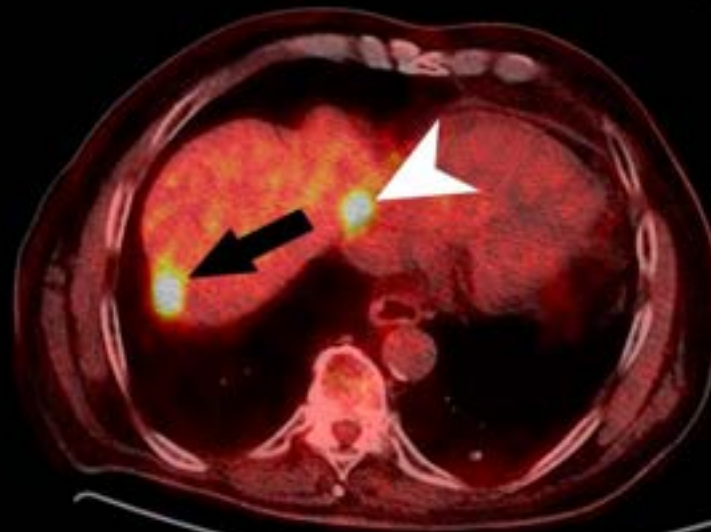
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-X-rays don't give tissue dx

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# NATURAL HISTORY

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- -brakes don't work
- vs
- -gas pedal stuck
- -changes in the instructions (DNA)

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# LOCAL RECURRENCE

-colon cancer 2%

-rectal cancer 20% (at least)

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# STAGING COMPONENTS

- History and physical
  - colonoscopy and biopsy
  - lab tests
  - imaging
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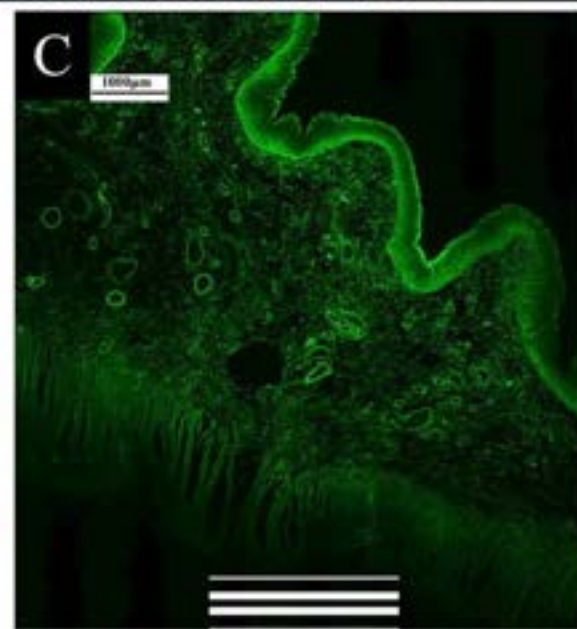
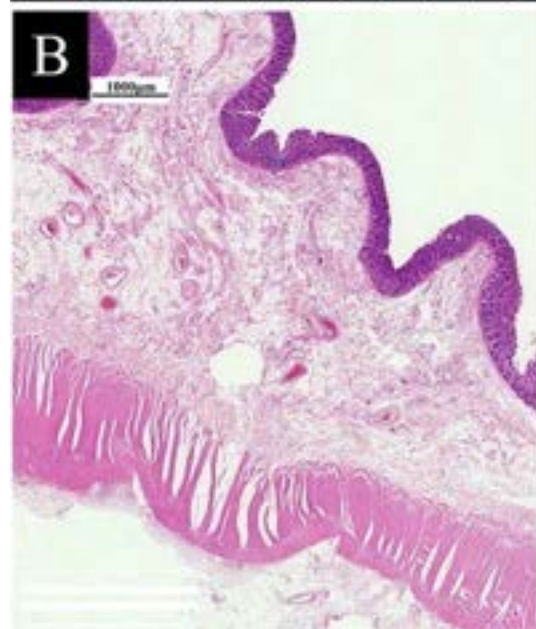
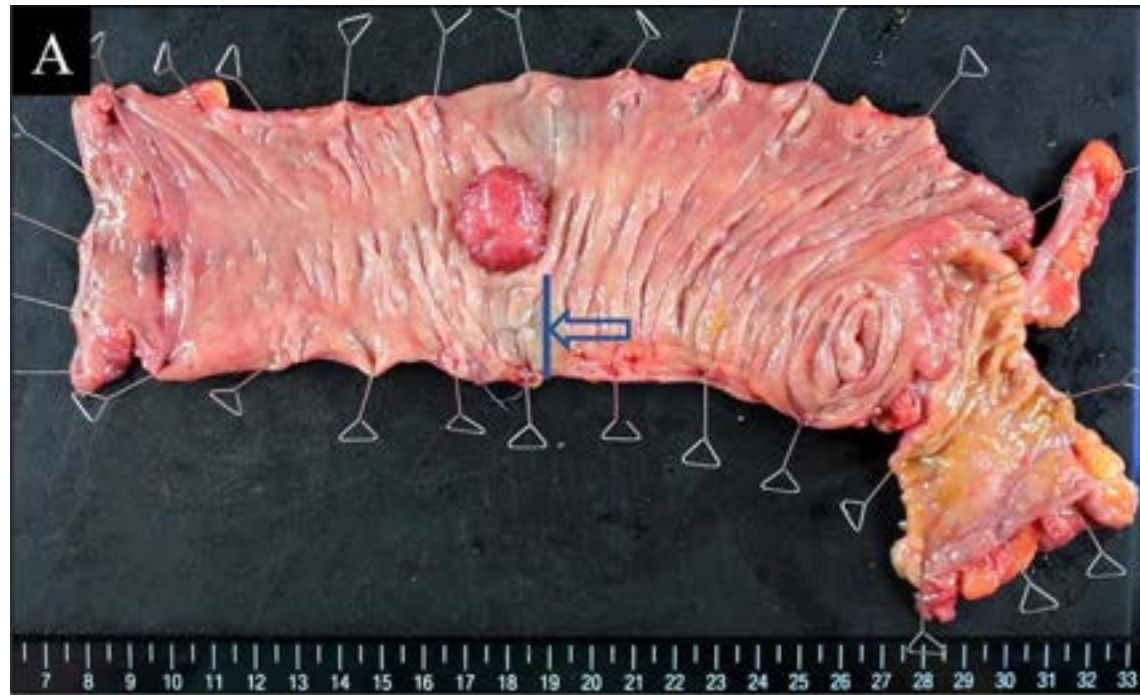
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# DISTANT RECURRENCE

-colon → liver

-rectum → lung

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# TREATMENT

- Local      surgery and/or radiation
  - Systemic    chemo/immunologic  
              as adjuvant or “neo” adjuvant
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# SEQUENCING

Colon - surgery upfront almost always

Rectum- increasingly neo adjuvant

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# CURE OF RECTAL CA WITHOUT SURGERY????

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# SIR WM OSLER

Medicine is the science of uncertainty

and

The art of probability

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