

How Does Colorectal CA (CRC) Effect Genders & Ethnicities?

Colorectal Cancer Prevention and Cure Symposium

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"Blood in the stools; constipated..."

- Mrs. "NotHerName", a 33 y.o. WF w/ 1 month of bloody stools (attributed to hemorrhoids from prior pregnancies) and acute worsening of "lifelong" constipation
- OTC stool softeners, increased hydration and fruits & veggies improve the constipation but bloody stools continue



"Here's our plan..."

- On exam, VSS; BMI = 27; non-surgical belly with quiet bowel sounds; no acute abdominal findings
- **DRE DEFERRED**
- Gave bowel regimen; discussed Linzess (GB is PRESENT); KUB showed non-obstructive large stool burden in D-colon & part of T-colon; discussed redundant colon w/up due to "lifelong" constipation



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"Let's get aggressive ..."

- At 3 mos. follow-up, the bowel regimen was effective. **Now, hematochezia is persistent**; and, limited food intake results in profound defecatory urge.
- VSS remain stable; **no weight loss**; belly exam is unchanged
- **REFER TO COLORECTAL SURGEON FOR C'SCOPE (IBD vs. redundant colon vs. IBS??)**



— — —
"Here we go ..."

- C'scope: Friable, ulcerated, circumferential sigmoid mass
- Patho: **Mod. diff. adenoCA**; 2/17 (+) mesenteric LNs
- Intra-Op: Segmental resection; (-) margins but (+) pericorectal tissue invasion => **Stage IIIb**
- Heme-Onc: Completed 12 rounds of chemotx; f/up CT-imaging & tumor markers (-)



Impact of Gender & Ethnicity on CRC

Today's Goal: To review some of the literature surrounding gender and ethnic epidemiology associated with CRC



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"Listen to your patient; [s]he is telling you the diagnosis."

— Sir William Osler (One of the "Big Four" Founders of Johns Hopkins Hospital; Founding Professor of Medicine, Johns Hopkins School of Medicine)



CRC - Incidence

- Globally, the highest CRC incidence rates are in Australia and New Zealand, Europe, and North America¹
- In the United States, CRC incidence is higher in males than in females and in Black Americans than in White Americans²



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Our patient? Lives in North America; female; identifies as a White American



CRC - Incidence

- A gradual shift toward right-sided (proximal) colon cancers has been observed in the United States, with the greatest relative increase in incidence seen in cecal primaries^{3,4}
- Death rates from CRC have declined progressively since the mid-1980s in the United States^{5,6}. ***However, notably, in the United States the declining mortality overall is masking trends in younger adults.***



CRC - Incidence

- SEER Database of the NCI: CRC mortality rates per 100,000 population among individuals under age 50 declined by approximately 2 percent per year from 2000 to 2004, and then increased by 1 percent annually through 2018. The increase was limited to White and Hispanic individuals; by contrast among Black individuals and Asian/Pacific Islander individuals, mortality rates were either stable or declined over this same time period⁷



CRC - early onset

- A global epidemiologic trend towards early onset colorectal cancer (EOCRC)
- In the United States, the proportion of new CRC cases among adults under the age of 55 years increased from 11 to 20 percent between 1995 and 2019



CRC - early onset

- These findings are being driven predominantly by left-sided cancers and rectal cancer⁸
- Likely that the increased incidence of EOCRC is **real** and **not** representative of a shift in age at diagnosis attributable to earlier detection^{9 - 11}



CRC - risk factors

- Environmental and genetic factors can increase the likelihood of developing CRC



CRC - risk factors

- Environmental and genetic factors can increase the likelihood of developing CRC
- ***The majority of CRCs are sporadic rather than familial***



CRC - risk factors

- Black Americans, Native Americans, and Alaskan Native individuals have among the highest incidence and mortality rates for CRC of all racial and ethnic groups in the United States⁸
 - CRCs occur at a younger age, as there is a higher frequency of CRC under age 50¹²
 - There also appears to be a more proximal distribution of both CRCs and adenomas
- CRC mortality is approximately 33 percent higher in males than in females⁸
 - Both colonic adenomas and CRCs appear to have a more proximal distribution in females



CRC - risk factors

- Screening strategies do not differ with regard to race
- None of the major United States organizations recommend that screening be stratified by gender



SUMMARY

- North America has one of the highest CRC incidence rates globally
- In the U.S., CRC incidence males >> females; Black Americans >> White Americans; and, involves right-sided (proximal / cecal) cancers
- Progressively declining CRC death rates in the U.S. since the mid-1980s is ***masking a trend in young adults***



SUMMARY

- ***Early onset colorectal CA (EOCRC)*** CRC mortality rates **increased** 1% annually through 2018 in Whites & Hispanics under 50 y.o.
- New CRC U.S. cases in adults < 55 y.o. **increased** from 11 to 20% between 1995 and 2019
- ***In aggregate, in the U.S. → the highest incidence AND mortality rates for CRC of all racial and ethnic groups: Black Americans, Native Americans, and Alaskan Natives***
 - *More CRC incidences < 50 y.o.; 33% higher mortality in males vs. females; and CRC distribution is more likely to be proximal colon*



SUMMARY

- Screening strategies do not differ with regard to ethnicity
- None of the major United States organizations recommend that screening be stratified by gender

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