

Colorectal Cancer in Women

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Case Overview

While colorectal cancer is more prevalent in men, women present with a more aggressive, right-sided cancer that leads to higher mortality and lower 5-year survival. Hormonal and anatomic differences between men and women may both contribute to this discrepancy, making sex an important factor to consider in colorectal cancer diagnosis and prognosis.

Patient Profile

- Name: Mrs. X
- Age: 77
- Sex: Female

Medical/Surgical History

- Myocardial infarction
- Congestive heart failure
- Atrial fibrillation
- Hypertension
- Asthma/COPD
- Colon cancer
- Diabetes
- 3 cardiac stents
- Colostomy
- Hysterectomy.

Current medications

- Carvedilol
- Furosemide
- Atorvastatin
- Montelukast
- Glipizide
- Metformin
- Oxycodone
- Magnesium
- Vitamin D

Social history

Retired. Widowed. Has six children, lives with youngest daughter.

Family history

Significant for brother with bladder cancer

Presenting Complaint

Mrs. X was a 77 year-old female with a history of right-sided colon cancer treated with surgery and chemotherapy who presented to the emergency department with worsening non-localized abdominal pain over the past two weeks. She also endorsed night sweats, decreased appetite, fatigue, and nausea, but denied fevers, vomiting, urinary symptoms, and changes in her colostomy output.

Assessment

On physical exam, Mrs. X was chronically ill appearing. Her abdomen was soft, mildly tender throughout without rebound or guarding, and mildly distended. Her labs were unremarkable. Her CT scan showed metastatic colon cancer.

Diagnosis

Metastatic colon cancer.

Evaluation/Treatment

This patient has previously been treated with surgery and chemotherapy for her colon cancer. As she refused treatment for her cancer at the time of hospitalization, she was discharged into hospice care.

Discussion

As colorectal cancer has long affected more men than women, sex differences throughout the course of the disease are often not well defined. Although there are some conflicting data, a few trends in particular are relevant to this case.¹

Colorectal cancer is the third most common cancer in men and second most common in women worldwide.² The site of highest incidence rates for males is the rectum, compared to the right colon for women (though this rate is still lower than that for right colon cancer in men).³ It has been suggested that left-sided cancer is less aggressive than right-sided cancer, perhaps in part because right sided colon cancer is usually more advanced at diagnosis.⁴ This may contribute to the fact that women over 65 with colorectal cancer have higher mortality and lower 5-year survival than age-matched male counterparts, especially when over 70 years old.^{2,5} Although this patient's prognosis at diagnosis was not known, based on these studies, her advanced age and right-sided location both suggest that she may have been at higher risk for poor outcome.

In addition, current screening methods may be insufficient to diagnose some cases of colorectal cancer in women. Researchers have suggested that colonoscopy may be more difficult in women, given that they possess a longer transverse colon compared to men, leading to decreased detection rates.⁶ Also, the fecal occult blood test, which is widely used for early

colorectal cancer detection, is less sensitive in women.⁷ Finally, women report perceiving colorectal cancer as a male disease, decreasing their concern and, therefore, screening.⁸

Hormones may also play a role in the differences seen between men and women. Studies have suggested that estrogen exposure or hormone replacement therapy may be protective against risk for colorectal cancer.⁹ The Women's Health Initiative Clinical Trial demonstrated a 40% decreased in risk in postmenopausal women taking HRT. However, taking HRT at the time of diagnosis was associated with higher grade or stage cancers.¹⁰ As the patient presented here had a hysterectomy with no HRT at age 45, it is possible that such hormonal changes increased her risk for colon cancer.

This case highlights a patient who decided to discontinue the treatment of her cancer. Although few data exist on gender differences in such choices, one study showed that women with stage III colon cancer were more likely to discontinue adjuvant chemotherapy after initial treatment, particularly as age increased.¹¹ Although such decisions differ greatly between patients, this is an important factor to consider when discussing next steps.

While this case highlights some of the differences between men and women with regard to colon cancer, it suggests that more data are needed to tease out subtle and overt differences further. From diagnosis to treatment decisions, sex and gender seem to determine much more than just incidence of colorectal cancer.

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