COVID-19 pandemic has left an enduring imprint on colorectal cancer surgery

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While the COVID-19 pandemic is no longer considered a public health emergency, pandemic-related stressors continue to impact cancer care
across the board. New research published this week in the *Journal of the American College of Surgeons (JACS)* describes how surgery for colorectal cancer—the third most commonly diagnosed cancer—was considerably disrupted during the pandemic.

In a large-scale retrospective analysis of 105,517 colorectal cancer cases, researchers noted a 17.3% overall decline in colorectal cancer surgeries in 2020 compared to 2019. There was also a notable shift toward more advanced disease in the same period, with researchers finding that patients who underwent surgery in 2020 were more likely to have advanced stages of colorectal cancer, which is harder to treat and cure.

"With this study, we found that approximately 10,000 fewer patients did not have surgery for colorectal cancer in 2020 compared to 2019. That's a profound decrease," said David W. Larson, MD, MBA, FACS, FASCRS, senior author of the study and a professor of surgery in the division of colon and rectal surgery at Mayo Clinic in Rochester, MN. "Colorectal cancer is a serious illness, and timely surgery is critical for improving patient outcomes."

Under normal circumstances, Dr. Larson added that researchers would expect stable, if not increasing, growth of colorectal cancer surgeries from year to year. Though rates of colorectal cancer have remained stable in people 50-64, the disease is increasingly diagnosed in younger adults and is now a leading cause of cancer deaths in people younger than 50.

**Study details**

Using the National Cancer Database (NCDB), the team reviewed cases of all adult patients who underwent operations for colon and rectal
cancer from January 1, 2019, through December 31, 2020, in hospital systems that contribute to the NCDB. The NCDB, an oncology research database jointly operated by the American College of Surgeons and the American Cancer Society, captures approximately 74% of all newly diagnosed cancer cases.

Patients who had surgery were divided into two groups: pre-COVID, which included patients operated on in 2019, and the COVID group, which included patients operated on in 2020. The researchers further analyzed the data by type of surgery, age, sex, race, ethnicity, income, insurance status, and other variables.

**Other key study findings**

- Operations for rectal cancer decreased by 21% and 16% for colon cancer, corresponding to an overall 17.3% decrease in colorectal cancer operations during the first year of the pandemic.
- Patients in the COVID group had a significantly lower rate of early-stage cancer (35.5% vs. 38.2%) and a significantly higher rate of advanced tumors (19.2% vs. 15.7%), which are associated with increased mortality risk.
- Black patients, patients on Medicaid, and those who lacked insurance were affected by more advanced colon and rectal cancer stages, and low-income patients had worse colon cancer stages.
- However, researchers did not find any significant delays in time to treatment once a patient was diagnosed with colorectal cancer.

The researchers attribute these findings to multiple factors, including an overall reduced number of colorectal cancer screenings in 2020, delays in colonoscopies, and widespread avoidance of medical care due to the fear of contracting COVID-19. Additionally, the pandemic may have
exacerbated known disparities in cancer care that frequently impact vulnerable patient populations, including Black patients and patients without insurance. A silver lining, Dr. Larson added, was noting the resilience of hospital systems that continued treating patients with colorectal cancer despite the constraints of the pandemic.

**Pandemic's enduring imprint**

In discussing the implications of their findings, the authors wrote in their paper, "The COVID-19 pandemic has left a significant and enduring imprint on colorectal cancer surgery, intensifying the challenges faced by patients and health care systems. Comprehensive studies are imperative to comprehend the long-term consequences of delayed screenings, diagnoses, and treatments, as health care planning for the future must consider the unintended repercussions of pandemic-related disruptions."

One limitation of the study is that it only describes the first nine months of the pandemic and its initial consequences. Dr. Larson noted that it will also be important to study optimal approaches for treating patients with advanced disease in future research. "We need to prioritize colorectal cancer care as a nation and work to address barriers to care," Dr. Larson said. "There's no question that early diagnosis of colorectal cancer remains critical."

Provided by American College of Surgeons


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