



## YOUR DOSE OF MEDICINE

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### Obesity tied to rise of GI, colorectal cancer in younger adults

**R**esearchers have identified a link between obesity and an increased incidence rate of gastrointestinal cancer in younger patients, as well as an increased rate of colorectal, esophageal, and pancreatic cancer resections in obese patients of various ages, according to an award-winning presentation.



These findings strengthen a contributing role of obesity in etiology as well as increasing incidence of these cancers and call for more efforts targeting obesity.

The abstract, noted in the presentation that the obesity rate in US adults exceeded 37 percent in 2014. In addition, the temporal changes of obesity-related GI cancers with regard to age-specific groups are not known.

There's sufficient evidence linking obesity to certain [GI cancers], such as esophagus, colon, pancreas, and gastric. "However, the impact of rising obesity prevalence on the incidence of these obesity-related GI cancers is unknown.

Researchers sought to investigate the incidence of obesity-related GI cancers by age group as well as whether there was an association between obesity-related GI cancers in both obese and nonobese patients.

Our hypothesis is that the incidence of some obesity-related GI cancers is rising in some age groups, and we suspect that this corresponds with increasing rates of obese patients undergoing these cancerous resections.

(27.6 percent), compared with non-obese patients.

Patients in the 18 to 49 years old group (11.2 percent), 50 to 64 years old group (14.6 percent), and 65 to 74 years old group (25.7 percent) also had a higher incidence of esophageal cancer resections.

The limitations of the study included defining BMI at the time of surgery, which does not account for weight loss due to cachexia, and relying on ICD-9 codes for obesity, which "may not be reliable in some cases.

The researchers evaluated cancer incidence trends in the Surveillance, Epidemiology and End Results (SEER) database between 2002 and 2013 as well as obesity trends from 91,116 obese patients (7.16 percent) and 1,181,127 nonobese patients (92.84 percent) in the National Inpatient Sample (NIS) database who underwent cancer resection surgeries.

Of these, 93.1 percent of patients underwent colorectal and 4.4 percent of patients underwent gastric cancer resections. Patients were considered obese if they had a body mass index of at least 30kg/ m<sup>2</sup>.

The researchers examined annual trends for incidence rates of obesity-related GI cancers by age group and obesity-related GI cancer resection by age and obesity, using a joinpoint regression analysis to determine the percentage change per year.

In patients age between 20 and 49 years, the incidence of colorectal cancer increased by 1.5 percent compared with a decrease of 1.5 percent in patients aged between 50 and 64 years old, a 3.8 percent decrease in patients aged 65-74 years, and a 3.9 percent decrease in patients who were a minimum of 75 years old.

Gastric cancer incidence also increased by 0.7 percent in patients aged between 20 and 49 years compared with 0.5 percent, 1.1 percent, and 1.8 percent decrease among patients who were aged 50-64 years, 65-74 years, and at least 75 years, respectively.

There was an increased cancer incidence among patients in the 20 to 49 years old age group (0.8 percent), 50 to 64 years old age group (1.0 percent), 65 to 74 years old age group (0.7 percent), and the 75 and older group (1.0 percent). Esophageal cancer was associated with a decreased incidence in the 20 to 49 years old group (1.8 percent), 50 to 64 years old group (1.1 percent), 65 to 74 years old age group (1.2 percent), and the 75 and older group (0.7 percent)

For obese patients who underwent colorectal cancer resection there was a 13.1 percent increase in the 18 to 49 years old group, a 10.3 percent increase in the 50 to 64 years old group, an 11.3 percent increase in the 65 to 74 years old group, and a 12.8 percent increase in the 75 years or older group, compared with an overall decreased incidence in the non-obese group.

There was an increased rate of pancreatic cancer resections for obese patients in the 50 to 64 years old group (26.9 percent) and 65 to 74 years old group

"However, we [saw] an increase in obese patients who come for resection, so it could have probably been more pronounced if we had accounted for obesity at the earlier age before diagnosis.