

## Morbidly obese patients face high risk for complications after colectomy

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New research published in the January issue of the *Journal of the American College of Surgeons* shows that morbidly obese patients are at higher risk than normal weight patients for complications after colectomy - surgical removal of all or part of the colon - for the treatment of cancer.

Obese patients are more likely than non-obese patients to develop and ultimately die from colon cancer, the second leading cause of cancer death in the United States. Surgical intervention remains the primary treatment for colon cancer, but it carries the risk of serious complications.

"Although recent analyses have suggested that obese patients undergoing colectomy have higher rates of complications after the operation, this is the first major study to examine how body mass index affects the risk of specific adverse events such as infection, kidney failure and blood clots," said Ryan P. Merkow, MD, department of surgery, University of Colorado Denver School of Medicine. "These findings could help medical teams anticipate and manage post-operative risks in morbidly obese patients."

The researchers used the American College of Surgeons National Surgical Quality Improvement Project dataset to identify 3,202 patients who underwent colectomy for cancer. These patients were categorized into four patient populations based on body mass index (BMI): normal weight (BMI = 18.5 to 24 kg/m2, 33.4 percent); overweight (BMI = 25



to 29 kg/m2, 35.1 percent); obese (BMI = 30 to 34kg/m2, 19.0 percent); and morbidly obese (BMI  $\geq$  35 kg/m2, 12.4 percent). Logistic regression models were developed to assess risk-adjusted 30-day outcomes by BMI while adjusting for preoperative risk factors.

Compared with normal weight patients, complications occurred more frequently in the morbidly obese (31.8 versus 20.5 percent, p $\leq$ 0.05). Specifically, the morbidly obese patients had a higher risk of surgical site infection (20.7 versus 9.0 percent, p $\leq$ 0.05), wound opening (3.3 versus 1.1 percent, p $\leq$ 0.05), pulmonary embolism (1.3 versus 0.3 percent, p $\leq$ 0.05) and kidney failure (3.0 versus 1.5 percent, p $\leq$ 0.05), but not other complications. Thirty-day mortality and length of stay did not differ significantly by BMI.

Normal, overweight and obese groups had similar overall complication rates (20.5 percent versus 23.9 percent versus 22.9 percent, respectively). However, compared with normal-weight patients, overweight patients experienced significantly more surgical site infections (8.0 percent versus 5.5 percent). No other complications occurred significantly more often in the overweight and obese groups.

Source: Weber Shandwick Worldwide

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