Depressed patients at higher risk for complications and hospital readmission after complex cancer surgery
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Cancer patients who report significant symptoms of depression before undergoing a complex abdominal surgery are at increased risk of postoperative complications and unplanned hospital readmissions, according to a University of Pittsburgh Cancer Institute (UPCI) study published in today's Journal of Clinical Oncology.

The study examined the relationship between preoperative symptoms of depression and 30-day complications and readmissions, as well as overall survival for patients undergoing hyperthermic intraperitoneal chemotherapy with cytoreductive surgery (HIPEC+CS), a complex surgical procedure during which abdominal tumors are removed and the area is "washed" with high doses of heated chemotherapy.

"Postoperative complications and readmissions can be very stressful for cancer patients and their families, not to mention very costly," said Carissa Low, Ph.D., assistant professor of medicine and psychology at UPCI's Biobehavioral Oncology Program and the study's lead author. "We wanted to look at patients who reported significant symptoms of depression before complex cancer surgery to see if depression predicts poorer postoperative outcomes."

Researchers had 98 patients scheduled for HIPEC+CS complete a measure of depressive symptoms prior to surgery. Of those patients, 28 percent had scores that indicated they were suffering from significant symptoms of depression. Within 30 days of leaving the hospital after their surgeries, 22 percent of those patients were readmitted to the hospital and 31 percent had suffered from a complication such as infection.

After statistically adjusting the findings to take into consideration possible effects of demographic and disease-specific risk factors, patients who reported significant symptoms of depression before surgery were more than five times more likely to have a complication or an unplanned hospital readmission within 30 days of hospital discharge. Depressed patients also had shorter survival, but this association was not significant after adjusting for postoperative risk factors such as extent of surgery and length of stay in the hospital.

"What this study tells us is that those patients going into this surgery with symptoms of depression are at risk for poorer short-term outcomes," Dr. Low said. "We don't yet know if these effects also will be seen in patients getting less complex surgery for other cancers."

"We also don't yet know the mechanisms responsible for these effects. In addition to psychological sources of depressed symptoms, there is evidence that the cancer itself may release factors that trigger some types of depressive symptoms, such as fatigue," Dr. Low said.

David Bartlett, M.D., a co-author on the study and the Bernard Fisher Professor of Surgery, University of Pittsburgh School of Medicine, added: "We plan to be in the forefront of research to determine how we can better target interventions to help patients with symptoms of depression prior to surgery. Our goal is to not only improve quality of life, but also to maximize the benefits of surgery for all our patients in any way we can."
