Study finds pre-surgical stress management improves mood, quality of life

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Brief stress management sessions prior to and immediately after surgery may have both short- and long-term benefit for men undergoing a radical prostatectomy for early-stage prostate cancer, according to research from The University of Texas M. D. Anderson Cancer Center.

The study, in the current issue of the Journal of Clinical Oncology, is the first to examine the benefits of psychosocial intervention for prostate cancer patients prior to surgery. It found that men who participated in the sessions experienced less short-term mood disturbance and better long-term quality of life, compared to patients who had the procedure but did not have any behavioral intervention.

Most psychosocial interventions in cancer of any type have been studied after patients have completed surgery, explained Lorenzo Cohen, Ph.D., the study's senior author and professor in M. D. Anderson's Departments of Behavioral Science and General Oncology, and director of the Integrative Medicine Program.

"We know that for men with early-stage prostate cancer, the time when they are making treatment decisions is very stressful," said Cohen. "A radical prostatectomy is not without possible, very personal, consequences, including urinary incontinence and erectile dysfunction. Patients may also be worried about the uncertainty that the surgery will cure their cancer.

"From other areas of research, we know that going into a surgical setting

overly stressed may increase a patient's recovery time. With this study, we wanted to intervene in the pre- and post-surgical setting and try to help relieve stress and minimize mood disturbance, such as depression, anxiety and distress, both in the short- and long-term."

For the randomized study, 159 early stage prostate cancer, radical prostatectomy patients were assigned to receive either: two 60-90 minute sessions of pre-surgical stress management intervention and brief booster sessions the morning of, and 48 hours following surgery; two 60-90 minute individual supportive attention sessions and boosters similar to the stress management group; or standard care. Assessments occurred before the sessions, one month before, one week before, and the morning of surgery, as well as six weeks, six and 12 months following surgery.

The stress management was based on aspects of cognitive behavioral therapy. Men in the stress management group met with a clinical psychologist and were taught simple behavioral techniques, including diaphragmatic breathing and relaxing guided imagery and cognitive therapy. Those in the supportive attention groups met with the same psychologist, but sessions were more general, and centered around open discussions. Patients in the standard care group did not receive any behavioral therapy.

For the stress management group, the men were exposed to an imagery experience of the day of surgery - all the sounds and sensations from pre-op, to the recovery room, to coming out of anesthesia - while they were in a relaxed state. They were then taught cognitive skills to work with negative thinking and realistic expectations - so that patients could better manage any unexpected side effects during their recovery or difficulty healing.

The researchers found that in terms of short-term effects, assessed at

one week before and the morning of surgery, men in the stress management group had the lowest levels of mood disturbance followed by those in the supportive attention group, with patients in the no therapy group having the highest level, with the difference between the stress management and standard care groups being statistically significant.

During the long-term follow-up, assessed at six weeks, six and 12 months, patients in the stress management group reported a higher level of physical functioning and aspects of quality of life than patients in the other two cohorts; the difference between the stress management and standard care groups was statistically significant.

The largest difference between the groups was at the 12-month follow-up, when the standard care group reported lower levels for physical functioning than those who received the stress management intervention. It's also interesting to note that at no point was there any statistical difference between the supportive attention and the other two groups, said Cohen.

Cohen and his team were surprised to see this level of difference in physical functioning during the long-term follow-up because the interventions in the pre- and peri-operative settings were so brief and mainly focused on aspects of stress management.

"We're trying to understand what is potentially associated with a patient's long-term quality of life and what was it that happened in the stress management group that resulted in a much better quality of life in the year post-surgery," Cohen said.

"Before we can suggest that stress management is useful prior to surgery for all men undergoing a radical prostatectomy, we need to better understand the mechanism behind our findings, as well as understand for whom this type of intervention will be the most useful," Cohen said.

"However, that said, all diagnosed with cancer treatment should be encouraged to participate in any stress management program - be it mind-body, or cognitive in nature. We know that they are safe and may improve patients' well-being and help them adjust to a cancer diagnosis."

As a follow up, Cohen and his team are currently analyzing immune function and stress hormone levels from collected blood samples.

Source: University of Texas M. D. Anderson Cancer Center (news : web)