

Anesthesia technique may reduce breast cancer recurrence and death

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Breast cancer patients who received the combination of a nerve block with general anesthesia for their breast cancer surgery had less cancer recurrence and were three times less likely to die than those who received only general anesthesia, according to a study presented at the [ANESTHESIOLOGY 2013](#) annual meeting. Additionally, patients who received the nerve block needed less opioid pain relief from drugs such as fentanyl and oxycodone.

"Surgery has long been the most effective treatment for solid [cancer](#) tumors," said Palle S. Carlsson, M.D., Ph.D., of the Department of Anaesthesiology, Aarhus University Hospital, Denmark. "However, it has been theorized that the long-term effect of anesthetic method, drugs used and the pain therapy applied after surgery can influence how the disease progresses – whether the cancer comes back or the patient dies."

During cancer surgery, tumor cells released into the bloodstream can transfer from the original tumor area and implant in lymph nodes and other organs far from the primary tumor, according to Dr. Carlsson. The human immune system plays a major role in fighting these runaway cells; however, surgery and anesthesia weaken the immune system.

In the study, a follow-up to a randomized, double-blinded study of paravertebral blocks (regional anesthesia nerve blocks) in 77 [patients](#) who had [breast cancer surgery](#), the patients were divided into two groups, both having general anesthesia. In addition, the first [group](#) received a regional nerve block via four to six injections of local

anesthetic. The second group received injections of saline. After six years, these patients' medical records were reviewed for death or cancer recurrence.

The study found that the death rate was significantly lower in the group who received the nerve block with general anesthesia. Ten percent of patients who received the nerve block and general anesthesia died compared to 32 percent of patients who received the placebo.

Additionally, the rate of cancer recurrence was significantly less for the nerve block and general anesthesia group as compared to the placebo group: 13 percent had a recurrence while 37 percent of the placebo group's cancer returned. The nerve block and [general anesthesia](#) group also took significantly fewer opioids than the placebo group: an average of 45 mg of morphine compared to the patients with [cancer recurrence](#) who took an average of 58 mg of morphine.

This is the first study of its kind, and the small number of patients demands confirmation by studies including larger groups of patients.

The number of new cases of invasive breast cancer in 2013 is estimated to be approximately 232,000. More than 39,000 people will die from [breast cancer](#) this year, according to the American Cancer Society.

Provided by American Society of Anesthesiologists

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