Medical Xpress

Nerve-block anesthesia can improve surgical recovery, even outcomes

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When planning for surgery, patients too often don't consider the kind of anesthesia they will receive. In fact, the choice of anesthesia can improve recovery, even outcomes.

Regional nerve blocks, an anesthesia technique available at NewYork-Presbyterian Hospital, are known to improve pain relief, reduce side effects and allow patients to go home sooner when compared with general anesthesia. With the introduction of ultrasound guidance, nerve blocks have become more accurate, making the technique available in the treatment of an increasing variety of conditions, including breast cancer surgery.

Dr. Anthony Robin Brown is director of the Division of Regional Anesthesia at NewYork-Presbyterian Hospital/Columbia University Medical Center.

"Nerve blocks target a specific area of the body, such as an arm or chest. With this approach, patients can avoid the downsides of general anesthesia during surgery and opioid-based medications used to control pain during recovery. The upshot is fewer instances of nausea, confusion, sedation (sleepiness) and pain, and a quicker recovery," says Dr. Brown, who is clinical professor of anesthesiology at Columbia University College of Physicians and Surgeons. "If patients prefer, they can remain awake during surgery and watch the procedure as it happens on video monitors. They also have the option of sedation that puts them to sleep."

Another potentially major advantage: Preliminary published research indicates that nerve blocks could help prevent the recurrence of cancer. The theory is that the stress of surgery can weaken the immune system, making recurrence more likely. General anesthesia and opioid-based medications only mask surgical stress. In contrast, nerve blocks work directly on the area of the body where the surgery is taking place. This prevents the initiation of the surgical stress response, with the result that the immune system function is not compromised.

Dr. Tiffany Tedore is director of the Division of Regional Anesthesia at NewYork-Presbyterian Hospital/Weill Cornell Medical Center. She is leading a clinical research study comparing nerve blocks with general anesthesia for breast cancer surgery to see which approach results in better pain control, fewer side effects and quicker recovery.

"Traditionally, breast cancer surgery has involved two kinds of anesthesia -- local anesthetic and sedation for biopsy, followed by general anesthesia for larger procedures such as mastectomy. Our study is looking at the benefits of replacing general anesthesia with a nerve block," says Dr. Tedore, who is also assistant professor of anesthesiology at Weill Cornell Medical College. "I anticipate our future studies will also look at cancer control."

More information: Barbara Biki, "Anesthetic Technique for Radical Prostatectomy Surgery Affects Cancer Recurrence," *Anesthesiology* 109, no. 2 (2008): 180.

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Source: New York- Presbyterian Hospital (news : web)