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## New developments in neuraxial anesthesia

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Neuraxial anesthesia is a widely used technique for abdominal and lower extremity surgeries. Studies have shown the benefit of neuraxial anesthesia over general anesthesia for vascular surgeries and for total hip and knee replacements. Intraoperatively, there is decreased blood loss, reduced need for opioids and also an attenuation of the stress response. Neuraxial techniques can reduce postoperative pulmonary, thromboembolic and cardiac complications. Patients are able to mobilize sooner after surgery and they have less incidence of ileus that may also impede their recovery. Many surgeries are done with spinal or epidural anesthesia alone or in conjunction with sedation. Sedation techniques can range from constant reassurance from the anesthesiologist, intermittent boluses of sedative medications, or continuous infusions. Dexmedetomidine is an alpha-2 agonist with sedative, analgesic and anxiolytic properties. Its use is increasing in popularity for sedation with neuraxial anesthesia because it causes less respiratory depression and patients are more easily arousable. Although the techniques for placing a spinal or epidural have remained the same, there are other factors that may complicate the execution. New anticoagulants such as Pradaxa® and Xarelto® have emerged that require updated guidelines for stopping anticoagulation before and after a spinal or epidural is placed. In addition, after a series of spinal hematomas, the FDA updated its recommendations for Lovenox®. Practitioners who provide neuraxial anesthesia should be aware of the practice guidelines in order to safely manage their patients. Multiport, soft-tipped, catheters have increased in attractiveness as compared to the traditional uniport, stiffer catheters. Most of the studies are derived from labor epidurals but some evidence shows that multiport catheters have fewer incidences of one-sided blocks and less need for manipulation of the epidural once it is placed. The soft-tipped catheters may cause less inadvertent venipuncture and decrease the need for replacement. In addition, there is controversy regarding the true utility of an epidural test dose due to its lack of sensitivity and specificity. Aspiration with a multiport catheter has been shown to be as effective in detecting intravascular or intrathecal misplacement of the epidural.

## Biography

Vanny Le, MD is an Interventional Pain Medicine Specialist. She graduated from the University of Medicine and Dentistry of New Jersey – New Jersey Medical School in Anesthesiology and completed an Interventional Pain Medicine Fellowship Program at St. Luke's-Roosevelt Medical Center/Columbia University, College of Physicians and Surgeons in New York.

Having a strong interest in furthering the field of pain medicine, Dr. Le has presented research at regional and national Pain Medicine conferences. She has also submitted research in the field of pain medicine for publication; most recently she co-authored a chapter on chronic foot pain in *Understanding Pain*, a book dedicated to patient education. Dr. Le is an active member in several academic and professional societies including the American Academy of Pain Medicine, American Society of Anesthesiology, American Medical Association and the New Jersey State Society of Anesthesiology and Society for Education in Anesthesiology.

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