

New approach may allow faster spinal anesthesia for cancer patients at end of life

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For patients with uncontrolled pain from terminal cancer, a new approach to calculating initial dosage may allow a quicker start of spinal analgesia—and less time in the hospital, according to a study in the June issue of *Anesthesia & Analgesia*, official journal of the International Anesthesia Research Society (IARS).

Led by Dr Vivek Tim Malhotra of Memorial Sloan Kettering Cancer Center, New York, the researchers developed a set of equations for estimating the initial dose of intrathecal spinal pain relievers, thus avoiding the need for a trial period of epidural anesthesia in the hospital. The researchers hope their method will shorten the time to satisfactory pain control in patients with pain from advanced cancer, allowing them to spend more of their remaining days at home.

New Equations for Estimating Intrathecal Analgesia Dose

Intrathecal analgesia is an important option for "intractable" cancer pain that no longer responds to oral or injected pain medications. In this technique, a catheter is placed in the intrathecal space around the spinal cord, with individualized doses of strong opioid pain relievers given through a drug pump. The standard approach to determining the initial dose is a trial period of another type of spinal drug injection—epidural analgesia—performed in the hospital.



However, by the time patients are referred to a pain specialist for spinal analgesia, they typically have advanced cancer with limited <u>life</u> <u>expectancy</u>. Dr Malhotra and colleagues were looking for some way of calculating the initial intrathecal analgesia dose without the need for an epidural trial.

The researchers performed an in-depth analysis of 46 patients, treated over a six-year period, who underwent an epidural drug trial before intrathecal analgesia. The goal was to develop a way of predicting the initial intrathecal dose based on the patient's last oral or injected ("systemic") drug dosage.

Based on this and other factors—including the patient's age, type of pain, type of cancer, and pain severity score—the researchers were able to develop relatively simple equations for predicting the initial intrathecal opioid dose needed to control the patients' pain. The equations provided at least a guideline for estimating the initial spinal analgesia dose, while avoiding the need for an epidural trial.

In the 46 patients studied, time spent in the hospital for placement of the spinal catheter and epidural trial was between 9 and 17 days. Dr Malhotra and coauthors estimated that using the study equations—and avoiding the need for an epidural trial—could reduce hospital days by about half.

"This reduces time in the hospital for those with an already limited life expectancy and minimizes medical cost and potential complications," Dr Malhotra and coauthors write. For the patients studied, median life expectancy after leaving the hospital was less than three months.

The researchers note that their equations had a wide statistical range, indicating that they are best used for patients expected to survive only a short time. But for these patients, the study equation will provide a



useful starting point, allowing <u>patients</u> to spend more of their final days at home rather than in the hospital. Dr Mahtola and colleagues plan further research—including data on side effects and quality of life—to refine their equations and better evaluate the benefits of intrathecal <u>analgesia</u> for intractable <u>cancer pain</u>.

More information: <u>www.anesthesia-analgesia.org/c</u> ... <u>tent/116/6/1364.full</u>

Provided by Wolters Kluwer Health

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