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ON-Q PAIN RELIEF SYSTEM

FIVE MYTHS YOU'VE HEARD ABOUT CONTINUOUS PERIPHERAL NERVE BLOCKS (CPNBS)

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When considering the options for post-surgical pain management, surgeons and anesthesiologists must work hand in hand to determine what is best for both patients and the facility. One of the most favorable options for post-surgical pain management is the use of continuous peripheral nerve blocks (CPNBs). Unfortunately, CPNBs are often not considered because of misconceptions surrounding their use. There are five main myths that deter surgeons and anesthesiologists from seriously considering CPNBs as an option, but after working together on thousands of orthopedic cases over the years, we can confirm the following are in fact only myths.

MYTH #1: CPNBS MEAN MORE WORK OR AN INCREASED WORKLOAD, ESPECIALLY FOR ORTHOPEDIC SURGEONS.

A very common misconception is that CPNBs lead to more work for orthopedic surgeons and greater call volume than single-shot nerve blocks. Consequently, some clinicians think CPNBs are just one more thing they need to be responsible for and manage.

In our experience, this is untrue on all fronts. Orthopaedists should not field pain related calls while the catheter is in place. The anesthesiology team should. However, it also is extremely rare that our anesthesiology team receives any calls. Dr. Hickman averages about one call per every forty or fifty patients who receive CPNBs for post-surgical pain. Our pump manufacturer also offers a 24-hour hotline for patients to call if they have questions about their device.

Having the right process in place to respond to patient questions about CPNBs is important as it can help to minimize the number of inbound calls. At our facility, the post anesthesia care unit (PACU) nurses make daily phone calls to patients and document their responses until the catheter comes out. This keeps us in contact with the patients and aware of how they are doing. If the patient has questions or issues, the nurses contact the anesthesiologists. Patients should have 24/7 access to staff and get call backs every day, but this is not something that should lead to an increased workload for surgeons.

MYTH #2: THEY CAN CAUSE A DELAY IN PATIENT TURNOVER.

In addition to the myth that you will receive more patient calls, another concern is that explaining what a CPNB is and how it works to patients – as well as the time necessary to place the CPNB prior to the surgery – will lead to procedure delays.

Again, establishing a process for CPNBs is key. For example, we place our CPNBs in the pre-operative area while the orthopedic surgeon is finishing up his or her previous case, rather than in the operating room. The result is that once the orthopedic surgeon is ready for the case, the patient already has their CPNB in place, and is ready to go without delay.

In addition to minimizing time in the operating room, information about CPNBs and catheter care should be included in the pre-surgical packet that is shared with patients during their final pre-surgical appointment. This ensures patients know what to expect and are aware of the team approach to managing their pain, which can lead to fewer questions the day of the surgery.

MYTH #3: THEY LEAD TO AN INCREASE IN COMPLICATIONS/INFECTIONS.

A common assumption is that because patients using CPNBs are sent home with catheters, they are at increased risk of developing post-surgical infections.[1]

Another complication that some orthopedic surgeons worry about is that CPNBs can get in the way of the surgical site and interfere with the procedure. However, with appropriate positioning and the use of ultrasound for proper placement, this issue can be mitigated.[2]

In our practice, we have only seen four or five infections out of more than 9,000 cases in which we have used CPNBs. All but one these infections were in patients that had catheters in place for at least seven days due to adhesive capsulitis or reflex sympathetic dystrophy (RSD), which is longer than the typical three to four days of post-operative surgical therapy required.

MYTH #4: SINGLE-SHOT NERVE BLOCKS ARE JUST AS EFFECTIVE, SO THERE IS REALLY NO NEED FOR CPNB.

While single-shot nerve blocks offer comparable pain relief immediately following surgery, this relief is short in duration. In contrast, patients with CPNBs experience continuous extended pain relief for days in the outpatient setting – that can then be titrated to their needs via a post-operative pain pump.[3] This pain relief is particularly important during the first three days post-surgery, which can be the most painful. Patients who receive a single-shot block can suffer rebound pain at 24 hours and experience similar pain severity as compared with those patients who do not receive a single-shot block.[4]

In addition to the pain-relief benefits, CPNBs can help patients become mobile and improve their range of motion faster than with other post-operative pain relief options.1 This means patients can start physical therapy (PT) sooner, which can help with range of motion. The quick transition to PT helps patients respond better. We have seen this impact in particular with total knee replacements (TKRs) in our practice. Studies have also shown that ON-Q* may help hospitals increase their HCAHPS scores in the critical area of pain management by improving post-operative pain management and getting patients back to normal activities faster. [5, 6, 7]

Another notable benefit of CPNBs is that the need for narcotics can often be reduced.[8] For example, many of our outpatient total shoulder patients that have CPNBs end up taking very few pain pills.

MYTH #5: CPNBS ARE EXPENSIVE.

While it may be true that CPNBs cost more up front than other forms of post-surgical pain relief, it's important to consider their impact on the patient's journey. CPNBs make it possible for more procedures to be done outpatient or with a reduced length of stay,[3] including TKRs and shoulder replacements, which all required in-patient care in the past. Even for in-patient procedures, patients with CNPBs often have faster time to ambulation and discharge, which leads to reduced costs.[3] Furthermore, by reducing opioid use, we are able to achieve pain control while reducing adverse events such as oversedation and respiratory depression. Finally, in many cases, the facility will receive reimbursement for the anesthesiologist placing CPNBs, leading to additional cost savings.

There are positives and negatives associated with all forms of post-surgical pain relief. When examining our real-world application of CPNBs alongside research on the topic, it is clear that clinical and cost myths are just that – myths.

Gregory Hickman, MD and Roger Ostrander, MD have consulting/speaking financial relationships with Avanos Medical, Inc.

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