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NEWS RELEASE

New Research by ONS Foundation Shows Liposomal Bupivacaine Decreases Pain and Opioid Consumption After Rotator Cuff Repair

Results show a 64 percent reduction in total opioid consumption among patients treated with liposomal bupivacaine for Arthroscopic Rotator Cuff Repair (ARCR)

Study offers guidance for number of opioids recommended to treat ARCR postoperative pain

GREENWICH, C.T., October 16, 2018 – The Orthopaedic and Neurosurgery Specialists Foundation for Clinical Research and Education (ONSF) today announced study results showing that patients undergoing arthroscopic rotator cuff repair (ARCR) surgery experience greater pain relief and consume significantly fewer opioids when a liposomal bupivacaine (EXPAREL®) field block is administered in addition to an interscalene block (ISB) with bupivacaine 0.5% for the treatment of postsurgical pain. The research was presented at the 2018 American Shoulder and Elbow Surgeons (ASES) Annual Meeting in Chicago.

The study compared a control group of primary ARCR patients given an ISB with bupivacaine 0.5% to a second group of primary ARCR patients who received the same ISB in addition to a field block with 20 mL of liposomal bupivacaine expanded with 40 mL saline to a total volume of 60 mL. Pain scores and postoperative opioid consumption were collected across groups. Results showed patients who also received liposomal bupivacaine:

- **Reported statistically and clinically lower pain scores** on postoperative days (POD) 1 and 2 (patients reported scores of 2.6 vs 5.7 for control group patients on POD 1; P=0.001 and scores of 3.6 vs 5.0 for control group patients on POD 2; P=0.05) as well as lower overall pain for the procedure.
- **Consumed 64 percent fewer opioids** (consuming 73.8 ± 51.9 oral morphine equivalents [OME] vs a consumption of 203.3 ± 127.7 OME in the control group; P=0.005)
- **Stopped taking opioids more quickly** (58 percent of patients stopped opioid therapy by POD 4 vs only 15 percent of those in the control group)
- **Did not request a refill of their opioid prescription** (Zero percent of patients requested a refill during the five-day perioperative period vs 28% of the control group patients)

“These study results clearly suggest that the addition of a liposomal bupivacaine field block to a bupivacaine interscalene nerve block for rotator cuff repair makes a significant difference in decreasing the level of pain patients experience following surgery, and thus the number of opioids they need to manage pain during their recovery period,” said Paul M. Sethi, M.D, lead researcher and President of the ONS Foundation for Clinical Research and Education. “High opioid prescribing and overprescribing for postsurgical pain carries not only acute risks related to opioid-related adverse effects, but also the risk of long-term opioid use. Through greater use of multimodal, opioid-minimizing pain management strategies, there is an opportunity to keep patients safe from these dangers.”

The results from the study also offer evidence based guidance on the quantity of postoperative opioids that should be adequate to manage pain in patients undergoing ARCR; there are no other studies which use patient derived data to determine how many pills patients should be given after rotator cuff surgery. “Information from the Centers for Disease Control and Prevention (CDC) let us know that opiate use beyond five days, as well as the need for prescription refills, directly increase the risk of developing opiate dependence. This postoperative pain protocol helps patients avoid these two risks,” Sethi concluded.

“Our findings suggest that arthroscopic rotator cuff repair patients treated with liposomal bupivacaine along with an interscalene nerve block should be prescribed no more than 25 oxycodone 5 mg pills—a stark contrast to the current average amounts prescribed, which a recent report – *Exposing a Silent Gateway to Persistent Opioid Use* – found to be about 93 pills,” continued Dr Sethi. “This meaningful reduction in volume of pills prescribed not only helps reduce the risk of opioid addiction or dependence in or postsurgical patients, but also the quantity of unused pills in the home, which are often improperly disposed of or stored.”

The study included 50 patients undergoing ARCR. Pain journals were used to document the patients’ daily pain on a Visual Analogue Scale (VAS) and to track daily opioid consumption during the first five postoperative days.

About ONSF
ONSF develops, validates, and disseminates advances in orthopedic and neurosurgery, clinical research, treatment of musculoskeletal disorders, rehabilitation protocols, and injury prevention to improve patient care on a broad scale.

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