Non-narcotic Acute Pain Relief After Ambulatory Aesthetic Surgery

Acute postoperative pain after ambulatory aesthetic surgery that involves large muscles or multiple-area soft tissue traumas may be effectively managed without narcotics. The authors describe how they use COX-2 inhibitors, bolus (large-area local anesthetic), or continuous-infusion local anesthetic. (Aesthetic Surg J 2002;22:493-494.)

Managing acute postoperative pain after ambulatory surgery has been ignored in postgraduate medical education and medical textbooks1-3 and journals,4 whereas managing pain in the hospitalized patient has received tremendous attention in the past 3 years. In 2000 the Joint Commission on Accreditation of Healthcare Organizations passed new pain management standards,5 mandating facility compliance by January 1, 2001. Many institutions, international associations, and regional societies label pain management the fifth vital sign.6,7

After most aesthetic surgical procedures, acute postoperative pain is frequently negligible. However, patients usually experience intense pain after procedures that involve muscle dissection or manipulation and extensive soft tissue injury. Submuscular breast augmentation, full abdominoplasty, and lipoplasty in multiple areas may produce intense, acute pain in the short term. Because pain duration and intensity after these procedures is variable, treatment must be individualized. Here are some general guidelines for addressing pain management:

- Establish pain management policies and procedures and familiarize your staff with them.
- Distribute pain management educational tools to patients and their families before surgery.
- Assess and reevaluate preoperative, intraoperative, and postoperative pain management medications and their administration.
- Address pain management in discharge planning and throughout the postoperative period.

Acute postoperative pain after aesthetic procedures that involve large muscles or multiple area soft tissue traumas may be managed with the following drugs and procedures:

1. Administer COX-2 inhibitors to decrease acute postoperative pain. Both oral celecoxib8 and rofecoxib,9 approved for acute pain management in adults, may be administered orally 1 hour before surgery for adequate postoperative blood levels. They may also be used after operation, 1 to 2 times daily, to manage mild to moderate pain. Patients who are allergic to sulfa should not use celecoxib, but may safely use rofecoxib. COX-2 inhibitor drugs do not prolong bleeding as compared with other nonsteroidal antiinflammatory drugs such as ibuprofen, ketorolac, and naproxen. Anecdotally, since we began routine administration of COX-2 inhibitors, patients report a decrease in pain intensity and use fewer opioids. Consequently, the incidence of postoperative complications such as nausea, dizziness, respiratory depression, and inadequate pain relief has decreased.

2. Large area local anesthesia (LALA) can decrease localized pain for 2 to 5 hours and has been used by anesthesiologists and surgeons for more than 70 years.10-12 More recently, it has been modified and renamed tumescent anesthesia or wetting solution.13 The following modification of LALA may be very effective in shortening discharge time in patients undergoing breast augmentation or abdominoplasty. For breast augmentation infuse dilute local anesthetic...
solution through a drain into the surgical site. Fill the breast implants with a closed fill system and draw down the saline solution in the intravenous bag to 150 mL. Ask the circulating nurse to transfer 0.25% bupivacaine 50 mL with epinephrine 1:200,000 into the bag. Use the breast implant fill syringe to pump 60 to 75 mL of the dilute local anesthetic solution into each implant pocket after wound closure. For abdominoplasty, mix the same anesthetic solution and inject it under the abdominal flap just prior to completing the closure. After 10 minutes, attach the drains to the suction reservoir to remove the solution. Since we have been using the LALA technique in breast augmentation and abdominoplasty, we have found that our patients use fewer postoperative narcotics and therefore experience less postoperative nausea and vomiting. Patients are typically discharged within 1 hour after surgery.

3. The use of controlled and continuous infusion of local anesthetics to the operative site can dramatically decrease postoperative pain. Clinical studies have been published on the efficacy and use of these systems for the relief of postoperative pain after nephrectomy, thoracotomy, inguinal hernia repair, knee arthroscopy, total knee arthroplasty, and shoulder surgery. An unpublished prospective study evaluating the efficacy of the Stryker PainPump (Stryker Corp, Kalamazoo, MI) after submuscular breast augmentation demonstrated promising results (McCann RB, Johnson SD. Unpublished data, 2000). Bupivacaine was used as the local anesthetic in all of these studies. Furthermore, data suggest that serum bupivacaine concentrations do not reach toxic levels when these continuous infusion methods are used.

4. Oral opioid combinations, such as acetaminophen and codeine, hydrocodone, and oxycodone may still be necessary for immediate postoperative pain control. Because the troublesome side effects of these drugs may complicate recovery from ambulatory aesthetic surgical procedures, it is advantageous to minimize their use.

References


Reprint requests: Laurie A. Casas, MD, 2050 Pfingsten Rd, Suite 270, Glenview, IL 60025.

Copyright © 2002 by the American Society for Aesthetic Plastic Surgery, Inc.

1090-820X/2002/$35.00 + 0 70/1/128625