

Continuous Wound Infusion Techniques in Postoperative Pain Management

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Objectives

1. Identify the role of wound infusion techniques in postoperative pain management.
2. Describe currently available tools and techniques for continuous wound infusion.
3. Review the role of wound infusion techniques as part of a multidisciplinary approach to pain control.
4. Understand complications both anticipated and unanticipated from the use of continuous wound infusions.

Effective perioperative analgesia is important from a patient perspective and may help to improve clinical outcomes following surgery. Recent patient surveys have reported only moderate success with regard to achieving adequate pain control with 30% to 86% of patients reporting moderate to severe pain after surgery. A wide variety of techniques have been employed to provide or improve acute postoperative pain control. These include traditional opioid analgesics, intrathecal or epidural analgesia, peripheral nerve blocks, non-opioid analgesics, TENS, massage, acupuncture, hypnosis and others. In recent years, growing efforts to reduce the need for opioid analgesics and to minimize adverse effects related to their use without compromising pain control have been undertaken. This has been especially desirable as the percentage of surgical procedures being performed on an outpatient basis has continually grown. These efforts have frequently involved a multimodal approach to perioperative analgesia. There has been a growing interest in the use of local anesthetics delivered into joints or surgical wounds on a continuous basis to produce or contribute to analgesia. One of the persistent features of studies examining the use of continuous local anesthetic infusions has been their consistent evidence for improved analgesia, reduced opioid use and side effects, increased patient satisfaction and perhaps, reduced hospital stay. This has been true across a wide variety of surgical procedures, wound catheter locations and dosing regimens and their use has been associated with a low incidence of catheter related complications. However, there have been some notable complications related to drugs infused through the catheters that have markedly reduced their use in settings in which they were previously believed to be safe and effective. In particular, reports of severe chondrolysis following local anesthetic infusions into the glenohumeral joint. Despite complications in this subset of patients, the efficacy and technical simplicity of this technique have resulted in widespread clinical use. This lecture will review the role of continuous wound infusion techniques for perioperative pain management.

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