Epidural analgesia in abdominal major surgery: pros, cons, and unresolved issues beyond pain control

Analgesia epidural en cirugía abdominal mayor: pros, contras y puntos sin resolver mas allá del control del dolor

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Epidural analgesia (EPA) is a recognized approach to pain control that is used in approximately 50% to 60% of all abdominal major surgeries around the world. It constitutes an important issue among strategies of multimodal postoperative analgesia, due to its potential to improve rehabilitation, low rate of complications, and high satisfaction reported by patients.\textsuperscript{1,2}

Worldwide trends to use epidural catheters at high spinal levels (usually T6-T8) and new delivery systems that provide pain rescue modalities added to classic continuous infusions have the potential to reduce the rates of related adverse events (uncontrolled pain, motor block, and urinary retention).\textsuperscript{3} Besides recognized advantages of EPA based on moderate to strong evidence, there are detractors who warn on a potential increase of intestinal leakage, but available information is of low/doubt quality and recent related papers have not found any association.\textsuperscript{4,5}

Hypotension remains as a big problem related to EPA and future research must focus on strategies to prevent it. Acute pain management services play a key role to implementation of standardized protocols of EPA in order to reduce postoperative morbidity and improve quality and safety (Fig. 1).

Ethical disclosures

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Conflicts of interest

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Epidural Analgesia in Abdominal Major Surgery: Pros. Cons & Unresolved Issues beyond Pain Control

Epidural analgesia (EPA) is calculated to be used in 50-60% of all abdominal major surgeries around the world.

**(Pros) Cardiopulmonary Morbidity**
- Respiratory Depression (OR 0.64) [95%CI 0.39-0.93]
- Pneumonia (OR 0.60) [95%CI 0.40-0.87]
- Heart A-V Block (OR 0.25) [95%CI 0.11-0.57]
- Other tachyarrhythmias (OR 0.69) [95%CI 0.55-0.87]

**(Cons) Cardiopulmonary Morbidity**
- Hypotension (OR 4.92) [95%CI 3.11-7.93]

**(Pros) Gastrointestinal Morbidity**
- Ileus (OR 0.43) [95%CI 0.21-0.88]
- PONV (OR 0.76) [95%CI 0.58-0.99]
- Dizziness (OR 0.42) [95%CI 0.24-0.72]

**(Cons) Gastrointestinal Morbidity**
- Pruritus (OR 1.47) [95%CI 1.15-1.88]
- Urinary Retention (OR 1.60) [95%CI 1.02-2.51]

**(Pros) Mortality**
- Global Mortality: EPA vs. control: OR 0.61 [95%CI 0.39-0.93]
- Vascular Surgery Mortality: EPA vs. control: OR 0.39 [95%CI 0.17-0.86]

**Unresolved but Important**
- Length of hospital stay (OR 1.07) [95%CI 1.05-1.08]
- Hospital readmission (OR 1.23) [95%CI 1.20-1.27]

**Figure 1. Impact of epidural analgesia for major surgery on perioperative outcomes and recommended puncture levels for different procedures. Source: Authors.**

**References**


