

***Anesthesiology Rounds***  
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**Intravenous Lidocaine for Postoperative Recovery After Major Abdominal Surgery**

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**Objectives:**

After reading this *Anesthesiology Rounds* article, the participant will be able to:

- Describe the anti-inflammatory, analgesic, antihyperalgesic, and antithrombotic properties of lidocaine
- Calculate the lidocaine dosage for major gastrointestinal surgery
- Determine perioperative indications for intravenous lidocaine
- Avoid toxic doses of lidocaine.

**Questions:** (*Only one answer is correct*)

1. Intravenous lidocaine has all the following properties, EXCEPT:
  - a. anti-inflammatory
  - b. analgesic
  - c. antihyperalgesic
  - d. antithrombotic
  - e. central nervous system toxicity at concentrations  $<5 \mu\text{g/mL}$
2. The anti-inflammatory properties of intravenous lidocaine can be explained by:
  - a. blockade of the sodium channels
  - b. stimulation of neutrophilic leukocytes and macrophages
  - c. inhibition of leukotriene and interleukin-1 release
  - d. stimulation of phagocytosis by the macrophages
  - e. activation and priming of neutrophil leukocytes
3. In gastrointestinal surgery, clinical studies about the perioperative administration of intravenous lidocaine, show:
  - a. signs of lidocaine systemic toxicity
  - b. an analgesic benefit
  - c. an increase in inhaled anesthetic requirements
  - d. a decrease in thromboembolic events
  - e. no significant effect.

4. In the perioperative setting, lidocaine accelerates recovery in all the following situations EXCEPT:
- a. in laparoscopic colon surgery
  - b. in open colon surgery
  - c. in orthopedic surgery
  - d. when a postoperative ileus is expected
  - e. when lidocaine is administered intra- and postoperatively
5. Duration of postoperative ileus in colon surgery
- a. is a major factor that determines the duration of hospital stay
  - b. decreases with a single injection of intravenous lidocaine preoperatively
  - c. decreases with major intraoperative fluid intake
  - d. decreases with postoperative morphine administration
  - e. decreases with lidocaine, only when it is injected epidurally

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