



Keeping it Simple for Emergency Room Dyspepsia

CLINICAL QUESTION

Should lidocaine or anti-spasmodics be added to antacids when treating emergency room patients with dyspepsia?

BOTTOM LINE

Best evidence suggests adding lidocaine and/or anti-spasmodics to antacids is unlikely to add meaningful pain relief compared to antacids alone. Evidence is inconsistent with one study finding antacids alone better, another no added benefit and a third (unblinded, older) showing lidocaine provided additional benefit. Patients (especially females) who present to emergency with new onset dyspepsia should have cardiac diagnosis ruled out.

EVIDENCE

- Three randomized controlled trials (RCTs) comparing antacid monotherapy to antacid plus lidocaine +/- anti-spasmodics for patients presenting to emergency with dyspeptic-like symptoms. Patients were ~40 years old, 60% female with baseline pain score (where reported) of ~65 on a ~100-point scale (lower=better).

- 89 patients randomized to antacid (Gastrogel®), antacid + lidocaine solution 2%, or antacid + viscous lidocaine 2%.¹ At 30 minutes:
 - Mean pain score improvement: No statistical difference between groups (antacid 24, antacid + lidocaine solution 20, antacid + viscous lidocaine 15 points).
 - Overall acceptability significantly (13-25 points) higher for antacid alone.
 - 14% of patients ultimately had cardiac diagnosis.
- 113 patients randomized to antacid (Mylanta®), antacid + antispasmodic (Donnatal®), or antacid + antispasmodic + lidocaine.² At 30 minutes:
 - Mean pain score improvement: No statistical difference between groups: (antacid 25; antacid + antispasmodic 23; antacid, antispasmodic + lidocaine 24 points).
- 73 patients randomized to antacid (Mylanta®) or antacid + viscous lidocaine 2%.³ At 30 minutes:
 - Mean pain score improvement: Antacid + lidocaine was greater than antacid alone (41 versus 9 points, statistically different).
 - Patient-reported “acceptable” pain relief: 69% for antacid + lidocaine versus 35% for antacid alone; number needed to treat=3.
 - Limitation: Clinicians not blinded.

CONTEXT

- Dyspepsia affects up to 16% of healthy individuals, with abdominal pain accounting for up to 9% of emergency room visits.^{4,5}
- Women with an acute myocardial infarction often experience prodromal symptoms and chest pain is less predictive of coronary artery disease:
 - Up to 45% of women have gastrointestinal symptoms as the presenting symptom compared to 34% in men.⁶
- Response to antacids should not be used for differentiating gastrointestinal or cardiac origin of pain.⁷

REFERENCES

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