

SURGICAL EVIDENCE

By

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We present published evidence on surgical practice that does not require specialized training or significant resources for its implementation. Surgeons are advised to read the full text of the evidence before following the study conclusions.

Routine Packing of Simple Cutaneous Abscesses Is Painful and Probably Unnecessary

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Objectives: The objective was to determine whether the routine packing of simple cutaneous abscesses after incision and drainage (I&D) confers any benefit over I&D alone.

Methods: In a prospective, randomized, single-blinded trial, subjects with simple cutaneous abscesses (less than 5 cm largest diameter) underwent incision, drainage, irrigation, and standard abscess preparation in the usual manner. Subjects were then randomized to either packing or no-packing. Visual analog scales (VAS; 100 mm) of pain were recorded in the emergency department (ED). All patients received trimethoprim-sulfamethoxazole (TMP-SMX), ibuprofen, and narcotic prescriptions, recorded twice daily VAS pain scores, and returned in 48 hours at which time dressings and packing, if present, were removed and a physician blinded to the randomization and not part of the initial visit repeated measurements and determined the need for further intervention.

Results: Forty-eight subjects were included in the final analysis. There were no significant differences in age, sex, abscess location, or initial pain scores between the two groups. There was no significant difference in need for a second intervention at the 48-hour follow-up between the packed (4 of 23 subjects) and nonpacked (5 of 25 subjects) groups ($p = 0.72$; relative risk = 1.3, 95% confidence interval [CI] = 0.4 to 4.2). Patients in the group that received packing reported higher pain scores immediately postprocedure (mean difference = 23.8 mm; $p = 0.014$, 95% CI = 5 to 42 mm) and at 48 hours postprocedure (mean difference = 16.4 mm; $p = 0.03$, 95% CI = 1.6 to 31.2 mm), as well as greater use of ibuprofen (mean difference = 0.32; $p = 0.12$, 95% CI = -1.4 to 2.0) and oxycodone/acetaminophen (mean difference = 2.19; $p = 0.03$, 95% CI = 0.2 to 4.1).

Conclusion: In this pilot study, not packing simple cutaneous abscesses did not result in any increased morbidity, and patients reported less pain and used fewer pain medications than packed patients.

Effects of a perioperative smoking cessation intervention on postoperative complications: a randomized trial

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Objective: To determine whether an intervention with smoking cessation starting 4 weeks before general and orthopedic surgery would reduce the frequency of postoperative complications.

Summary Background Data: Complications are a major concern after elective surgery and smokers have an increased risk. There is insufficient evidence concerning how the duration of preoperative smoking intervention affects postoperative complications.

Methods: A randomized controlled trial, conducted between February 2004 and December 2006 at 4 university-affiliated hospitals in the Stockholm region, Sweden. The outcome assessment was blinded. The follow-up period for the primary outcome was 30 days. Eligibility criteria were active daily smokers, aged 18 to 79 years. Of the 238 patients assessed, 76 refused participating, and 117 men and women undergoing surgery for primary hernia repair, laparoscopic cholecystectomy, or a hip or knee prosthesis were enrolled.

Intervention: Smoking cessation therapy with individual counseling and nicotine substitution started 4 weeks before surgery and continued 4 weeks postoperatively. The control group received standard care. The main outcome measure was frequency of any postoperative complication. **RESULTS:** An intention-to-treat analysis showed that the overall complication rate in the control group was 41%, and in the intervention group, it was 21% ($P = 0.03$). Relative risk reduction for the primary outcome of any postoperative complication was 49% and number needed to treat was 5 (95% CI, 3-40). An analysis per protocol showed that abstainers had fewer complications (15%) than those who continued to smoke or only reduced smoking (35%), although this difference was not statistically significant.

Conclusion: Perioperative smoking cessation seems to be an effective tool to reduce postoperative complications even if it is introduced as late as 4 weeks before surgery.

Early enteral feeding versus "nil by mouth" after gastrointestinal surgery: systematic review and meta-analysis of controlled trials

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Objective: To determine whether a period of starvation (nil by mouth) after gastrointestinal surgery is beneficial in terms of specific outcomes.

Design: Systematic review and meta-analysis of randomised controlled trials comparing any type of enteral feeding started within 24 hours after surgery with nil by mouth management in elective gastrointestinal surgery. Three electronic databases (PubMed, Embase, and the Cochrane controlled trials register) were searched, reference lists checked, and letters requesting details of unpublished trials and data sent to pharmaceutical companies and authors of previous trials.

Main outcome measures: Anastomotic dehiscence, infection of any type, wound infection, pneumonia, intra-abdominal abscess, length of hospital stay, and mortality.

Results: Eleven studies with 837 patients met the inclusion criteria. In six studies patients in the intervention group were fed directly into the small bowel and in five studies patients were fed orally. Early feeding reduced the risk of any type of infection (relative risk 0.72, 95% confidence interval 0.54 to 0.98, $P=0.036$) and the mean length of stay in hospital (number of days reduced by 0.84, 0.36 to 1.33, $P=0.001$). Risk reductions were also seen for anastomotic dehiscence (0.53, 0.26 to 1.08, $P=0.080$), wound infection, pneumonia, intra-abdominal abscess, and mortality, but these failed to reach significance ($P>0.10$). The risk of vomiting was increased among patients fed early (1.27, 1.01 to 1.61, $P=0.046$).

Conclusions: There seems to be no clear advantage to keeping patients nil by mouth after elective gastrointestinal resection. Early feeding may be of benefit. An adequately powered trial is required to confirm or refute the benefits seen in small trials.