Reconsidering Perioperative Antibiotic Use in Elective Laparoscopic Cholecystectomy

Kayla B. Briggs
Children's Mercy Hospital

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**Introduction**

- Increasing antibiotic resistance has made the routine use of prophylactic perioperative antibiotics (PPA) questionable in cases with a low rate and risk of surgical site infection (SSI).
- Elective laparoscopic cholecystectomy (ELC) is considered a clean-contaminated case (risk of infection of 3-11%).
- We sought to evaluate institutional use of PPA and subsequent SSI rates in ELC.

**Methods**

- Retrospective review
  - Children <18 years old
  - Elective laparoscopic cholecystectomy
  - July 2010 and August 2020
- SSI defined as infection requiring antibiotics within 30 days of surgery
- Demographics, baseline characteristics, operative details, and follow-up data were recorded

**Results**

502 patients underwent ELC during the study period

- Majority (78%) female and Caucasian (80%)
- 60% (n=301) received PPA, 40% (n=201) did not
- Overall SSI rate: 3%

Children who received PPA were 77% less likely to develop SSI on multivariate analysis

- All superficial SSIs
- Only 1 child readmitted for IV antibiotics

**Conclusion**

- Prophylactic perioperative antibiotic use decreases the rate of SSI however, all SSIs were superficial in nature and only one in our cohort required hospitalization for further treatment.
- PPA use should be carefully considered to avoid contributing to antibiotic-related complications.