Worse outcomes in patients undergoing urgent surgery for left-sided diverticulitis admitted on weekends vs weekdays: a population-based study of 31 832 patients


HYPOTHESIS
Among patients undergoing urgent surgery for left-sided diverticulitis, those admitted on weekends vs weekdays have higher rates of Hartmann procedure and adverse outcomes.

DESIGN
Analysis of data from the Nationwide Inpatient Sample between January 2002 and December 2008. Unadjusted and risk-adjusted generalized linear regression models were used.

SETTING
Academic research.

PATIENTS
Data on patients undergoing urgent surgery for acute diverticulitis.

MAIN OUTCOME MEASURES
Rates of Hartmann procedure vs primary anastomosis, complications, length of hospital stay, and total hospital charges.

RESULTS
In total, 31 832 patients were included; 7066 (22.2%) were admitted on weekends, and 24 766 (77.8%) were admitted on weekdays. The mean (SD) age of patients was 60.8 (15.3) years, and 16 830 (52.9%) were female. A Hartmann procedure was performed in 4580 patients (64.8%) admitted on weekends compared with 13 351 patients (53.9%) admitted on weekdays (risk-adjusted odds ratio [OR], 1.57; P < .001). In risk-adjusted analyses, patients admitted on weekends had significantly higher risk for any postoperative complication (OR, 1.10; P = .005) and nonroutine hospital discharge (OR, 1.33; P < .001) compared with patients admitted on weekdays, as well as a median length of hospital stay that was 0.5 days longer and median total hospital charges that were $3734 higher (P < .001 for both).
CONCLUSIONS
Patients undergoing urgent surgery for left-sided diverticulitis who are admitted on a weekend have a higher risk for undergoing a Hartmann procedure and worse short-term outcomes compared with patients who are admitted on a weekday. Further research is warranted to investigate possible underlying mechanisms and to develop strategies for reducing this substantial weekend effect.

type: journal paper/review (English)
date of publishing: 7-2012
journal title: Arch Surg (147/7)
ISSN electronic: 1538-3644
pages: 649-55