April 2016 Featured Articles, Volume 222

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Article 1: General Surgery
Outpatient laparoscopic appendectomy: is it time to end the discussion? Frazee RC, Abernathy SW, Isbell CL, et al. J Am Coll Surg 2016;222:473–477

Article 2: Breast
Impact of cooperative trial and sociodemographic variation on adjuvant radiation therapy usage in elderly women (≥70 years) with stage I, estrogen receptor-positive breast cancer: analysis of the National Cancer Data Base. Chu QD, Medeiros KL, Zhou M, et al. J Am Coll Surg 2016;222:667–678

Article 3: Infections
Patients with complicated intra-abdominal infection presenting with sepsis do not require longer duration of antimicrobial therapy. Rattan R, Allen CJ, Sawyer RG, et al. J Am Coll Surg 2016;222:440–446

Article 4: Gallbladder
Trends in follow-up of patients presenting to the emergency department with symptomatic cholelithiasis. Dimou FM, Adhikari D, Mehta HB, Riall TS. J Am Coll Surg 2016;222:377–384

Article 5: General Surgery
Which complications matter most? Prioritizing quality improvement in emergency general surgery. Scarborough JE, Schumacher J, Pappas TN, et al. J Am Coll Surg 2016;222:515–524

Objectives: After reading the featured articles published in this issue of the *Journal of the American College of Surgeons* (JACS) participants in this journal-based CME activity should be able to demonstrate increased understanding of the material specific to the article featured and be able to apply relevant information to clinical practice.

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ARTICLE 1

(Please consider how the content of this article may be applied to your practice.)

Outpatient laparoscopic appendectomy: is it time to end the discussion?

Frazee RC, Abernathy SW, Isbell CL, et al
J Am Coll Surg 2016;222:473–477

Learning Objectives: The reader will become familiar with the outcomes of an outpatient protocol for uncomplicated appendicitis, have a better understanding of how the outpatient protocol compares with other treatment options for uncomplicated appendicitis, and be aware that this protocol can produce consistent results over several years.

Question 1

A protocol for outpatient laparoscopic appendectomy:

a) Is successful in all patients.
b) Results in readmission of half of the patients.
c) Produces poor patient satisfaction.
d) Has consistent results over several years.
e) Can be done only at hospitals with resident coverage.

http://dx.doi.org/10.1016/j.jamcollsurg.2016.01.001
ISSN 1072-7515/16

Critique: There is a diverse approach to the management of uncomplicated appendicitis, ranging from open appendectomy to antibiotics without surgery. The optimal treatment should be effective, have low morbidity and readmissions, be cost effective, have good patient satisfaction, and be reproducible over time. A protocol for outpatient laparoscopic appendectomy demonstrated an overall 85% success rate with 1% readmissions, good patient satisfaction, and low morbidity. These results were demonstrated consistently for each of 3 consecutive years after initiation of the protocol and have the potential for widespread adoption.

Question 2

Reasons to avoid outpatient management include:

a) Night time dismissal.
b) Inadequate support at home.
c) Insurance status.
d) Allergies to antibiotics.
e) Use of a stapler on the mesoappendix.

Critique: Although appendicitis can develop at any age, it is more prominent in young adults. This younger and typically healthier patient population is ideal for outpatient management. Dismissal criteria with the outpatient protocol included ability to tolerate oral liquids, adequate pain control, ability to void, no change in mental status, ability to ambulate, control of nausea and vomiting, hemodynamic stability, adequate respiratory effort, appropriate supervision and assistance at home, and physician approval. Physician discretion for admission of patients with multiple pre-existing comorbidities is an important factor for good outcomes, and the protocol does not replace sound physician judgment. Patients were dismissed from the recovery room at all hours through the day and night if they met criteria. Patient satisfaction was not affected by night time dismissal.

Question 3

Based on the protocol, patients eligible for outpatient laparoscopic appendectomy include:

a) Adults with uncomplicated appendicitis.
b) Pregnant females.
c) Patients who are younger than age 17.
d) Interval appendectomy.
e) Perforated appendicitis.

Critique: The outpatient protocol in this article was applied only to adult patients. Although other studies have demonstrated success with selective application of outpatient appendectomy in the pediatric population, this was not addressed in this study. There is preliminary evidence in the literature that this approach could be expanded to the pediatric population as long as appropriate parental support is present. Operative findings of perforation were considered a contraindication to outpatient management, as parenteral antibiotics were continued postoperatively. Pregnant females, gangrenous or perforated appendicitis, and interval appendectomy were also exclusion criteria.

Question 4

The outpatient laparoscopic appendectomy protocol:

a) Has a higher recurrence rate than that in patients with appendicitis treated with antibiotics.
b) Requires antibiotic treatment duration that is the same as that in patients with appendicitis treated nonoperatively with antibiotics.
c) Is more cost effective than postoperative admission.
d) Is a poor allocation of finite health care resources.
e) Allows the surgeon to admit the patient at night, get a good night's sleep, and perform the operation the next day.

Critique: Acute appendicitis has been approached operatively and nonoperatively. Operative management has traditionally been associated with postoperative admission. In addition, there is a school of thought that appendicitis is not a surgical emergency and that patients can be admitted for 24 hours to permit the surgeon to perform the operation at a more convenient time. Although there are conflicting studies in the literature regarding the impact of operative delay, there is clearly added unnecessary cost of care with preoperative admission and delayed surgery. Likewise, postoperative admission increases the cost of care compared with outpatient management. There has been a recent renewal of enthusiasm for nonoperative treatment of appendicitis with a prolonged treatment course of antibiotics, but recent meta-analyses show treatment failure of 25% to 40% with antibiotics alone.

ARTICLE 2

(Please consider how the content of this article may be applied to your practice.)

Impact of cooperative trial and sociodemographic variation on adjuvant radiation therapy usage in elderly women ($\geq$70 years) with stage I, estrogen receptor-positive breast cancer: analysis of the National Cancer Data Base

Chu QD, Medeiros KL, Zhou M, et al
J Am Coll Surg 2016;222:667–678