
Management of Uncomplicated Acute Appendicitis as Day Case Surgery: Feasibility and a Critical Analysis of Exclusion Criteria and Treatment Failure



Gérard Grelpois, PhD, Charles Sabbagh, MD, PhD, Cyril Cosse, PhD, Brice Robert, MD, Emilie Chapuis-Roux, MD, Alexandre Ntoubas, MD, Thierry Lion, MD, Jean-Marc Regimbeau, MD, PhD

BACKGROUND: Day case surgery (DCS) for uncomplicated acute appendicitis (NCAA) is evaluated. The objective of this prospective, single-center, descriptive, nonrandomized, intention-to-treat cohort study was to assess the feasibility of DCS for NCAA with a critical analysis of the reasons for exclusion and treatment failures and a focus on patients discharged to home and admitted for DCS on the following day.

STUDY DESIGN: From April 2013 to December 2015, NCAA patients meeting the inclusion criteria were included in the study. The primary end point was the success rate for DCS (length of stay less than 12 hours) in the intention-to-treat population (all NCAA) and in the per-protocol population (no pre- or perioperative exclusion criteria). The secondary end points were morbidity, DCS quality criteria, predictive factors for successful DCS, patient satisfaction, quality of life, and reasons for pre- or perioperative exclusion. A subgroup of patients discharged to home the day before operation was also analyzed.

RESULTS: A total of 240 patients were included. The success rate of DCS was 31.5% in the intention-to-treat population and 91.5% in the per-protocol population. The rates of unplanned consultations, hospitalization, and reoperation were 13%, 4%, and 1%, respectively. An analysis of the reasons for DCS exclusion showed that 73% could have been modified. For the 68 patients discharged to home on the day before operation, the DCS success rate was 91%.

CONCLUSIONS: Day case surgery is feasible in NCAA. A critical analysis of the reasons for exclusion from DCS showed that it should be possible to dramatically increase the eligible population. (J Am Coll Surg 2016;223:694–703. © 2016 by the American College of Surgeons. Published by Elsevier Inc. All rights reserved.)

Acute appendicitis (AA) is still one of the most frequent digestive emergencies, and appendectomy is still the reference treatment in this setting.¹⁻⁵ Uncomplicated AA (NCAA) often involves young, otherwise healthy people.

Most appendectomies for NCAA are performed laparoscopically; they require only a short stay in hospital and are associated with a low postoperative complication rate. The feasibility of operation with an overall length

CME questions for this article available at
<http://jacscme.facs.org>

Disclosure Information: Authors have nothing to disclose. Timothy J Eberlein, Editor-in-Chief, has nothing to disclose.

Presented at the European Surgical Association 23rd Annual Meeting, Edinburgh, Scotland, April 2016.

Received May 16, 2016; Revised August 3, 2016; Accepted August 3, 2016. From the Department of Digestive Surgery (Grelpois, Sabbagh, Cosse, Chapuis-Roux, Regimbeau), Clinical Research Center (Grelpois, Cosse, Regimbeau), Department of Radiology and Medical Imaging (Robert), Department of Anesthesia (Ntoubas), Emergency Department (Lion),

Amiens-Picardie University Medical Center, Department of Digestive Surgery (Grelpois, Sabbagh, Cosse, Chapuis-Roux, Regimbeau), Virology Research Unit (Grelpois, Regimbeau), Clinical Research Center (Grelpois, Cosse, Regimbeau), Institut National de la Santé et de la Recherche Médicale UMR-S 1088 (Sabbagh, Cosse), Department of Radiology and Medical Imaging (Robert), Department of Anesthesia (Ntoubas), and the Emergency Department (Lion), University of Picardie Jules Verne (Sabbagh, Chapuis-Roux, Regimbeau), Amiens, France.

Correspondence address: Jean-Marc Regimbeau, MD, PhD, Department of Digestive Surgery, Amiens-Picardie University Medical Center, Avenue René Laënnec, F-80054 Amiens cedex 1, France. email: regimbeau.jean-marc@chu-amiens.fr

Abbreviations and Acronyms

AA	= acute appendicitis
CAA	= complicated acute appendicitis
DCS	= day case surgery
ITT	= intention to treat
LOS	= length of stay
NCAA	= uncomplicated acute appendicitis
PP	= per-protocol

of stay (LOS) of less than 24 hours has been evaluated in several studies⁵⁻⁸ and was reviewed recently.⁹

Day case surgery (DCS) is defined by the French recommendations as an LOS of less than 12 hours and the absence of overnight hospitalization.¹⁰ An increasing proportion of medical emergencies are being managed with DCS (especially in proctology¹¹), and a few studies have evaluated this treatment modality for NCAA.^{7,12-14} However, with the exception of the study by Lefrancois and colleagues,¹⁴ most of these studies were not performed in a dedicated DCS department.

The objective of the current study was to assess the feasibility of DCS for NCAA with a critical analysis of the reasons for exclusion from DCS and treatment failures and a focus on patients discharged to home and admitted for DCS on the following day.

METHODS

Study design

This was a prospective, single-center, descriptive, non-randomized, intention-to-treat (ITT) cohort study ([ClinicalTrials.gov](https://clinicaltrials.gov) Identifier: NCT01839435).

Inclusion and exclusion criteria

The preoperative inclusion criteria were: NCAA with an American Society of Anesthesiologists score <3, a sufficient understanding of the DCS procedure, age older than 18 years, and Social Security coverage. The preoperative exclusion criteria were: complicated AA (CAA), refusal to undergo DCS, contraindications for operation or DCS, living alone or more than 1 hour from a hospital, not being easily contactable, diagnosis of NCAA made between midnight and 7 AM or during the weekend, pregnancy, breastfeeding, legal guardianship, and incarceration. The perioperative exclusion criteria were the discovery of CAA and any perioperative change in the diagnosis or associated surgical procedures (cecectomy).

Preoperative management

The study's objectives and procedures were first presented to the staff in the emergency, radiology, anesthesiology, and

surgery departments. Acute appendicitis was diagnosed by an experienced digestive surgeon. Computed tomography and ultrasound assessments were performed and analyzed by a radiologist. The choice of imaging technique was left to the radiologist. The decision to suggest DCS and include the patient in the study was validated on consultation by an experienced digestive surgeon and an anesthesiologist. Once selected for DCS, the patient was given the consultant surgeon's on-call number and comprehensive information on the study's protocol and objectives. All patients received, in the presence of the investigator, a single oral dose of analgesics (tramadol) and a single oral dose of antibiotics (amoxicillin plus clavulanic acid). Depending on the time of day of diagnosis, patients were managed in 1 of 3 different ways (Fig. 1). Between midnight and 7 AM, DCS was not suggested because the DCS department was closed. Patients were admitted in the traditional ward, different from the DCS department. Between 7 AM and midday, the patient was hospitalized in the DCS department, operated on in the morning, and discharged in the afternoon. Between midday and midnight, the patient went home (patients were not admitted after a consultation in the emergency department) and was admitted to the DCS department the next morning, operated on in the morning, and discharged in the afternoon.

Surgical procedures

All procedures were performed laparoscopically. In accordance with guidelines,¹⁵ patients with NCAA were given a single IV injection of antibiotics on induction of general anesthesia and did not receive any antibiotics thereafter.

Postoperative management

Hospitalization in the DCS department was preoperatively organized from the emergency department. Two of the DCS department's beds were dedicated to emergencies. If the patient had been admitted during the DCS's open hours, the surgeon reserved a bed by telephone. If the patient had been admitted outside the DCS's open hours, the surgeon reserved a bed for the next morning (by email).

On return to the DCS department after operation, patients were immediately refed (ie they were given water and a sandwich) and discharged to home (with a prescription for oral analgesics), if diet had been well tolerated, with a detailed information sheet, including contact numbers for urgent advice. Each patient received a telephone call from a nurse in the DCS department on the morning after discharge. If unable to be discharged, the patient was hospitalized in the digestive surgery department. The follow-up evaluation was performed in our outpatient clinic at postoperative days 7 and 30. Patients

Download English Version:

<https://daneshyari.com/en/article/5733527>

Download Persian Version:

<https://daneshyari.com/article/5733527>

[Daneshyari.com](https://daneshyari.com)