



ELSEVIER

Surgery for Obesity and Related Diseases ■ (2016) 00–00

SURGERY FOR OBESITY  
AND RELATED DISEASES

## Original article

## Eliminating routine upper gastrointestinal contrast studies after sleeve gastrectomy decreases length of stay and hospitalization costs

Lionel Rebibo, M.D.<sup>a</sup>, Cyril Cosse, Ph.D.<sup>a,b</sup>, Robert Brice, M.D.<sup>c</sup>, Cyril Chivot, M.D.<sup>c</sup>,  
Thierry Yzet, M.D.<sup>c</sup>, Abdennaceur Dhahri, M.D.<sup>a</sup>, Jean-Marc Regimbeau, M.D., Ph.D.<sup>a,d,e,\*</sup>

<sup>a</sup>Department of Digestive Surgery, Amiens University Hospital, Amiens, France

<sup>b</sup>Research and Methodology Unit, Amiens University Hospital, Amiens, France

<sup>c</sup>Department of Radiology, Amiens University Hospital, Amiens, France

<sup>d</sup>Virology Research Unit, EA 4294, Jules Verne University of Picardie, Amiens, France

<sup>e</sup>Clinical Research Center, Amiens University Hospital, Amiens, France

Received July 13, 2016; accepted October 16, 2016

**Abstract**

**Background:** Recent series have shown the lack of value of routine upper gastrointestinal (UGI) contrast studies on postoperative day 1 or 2 for the detection of gastric leak (GL) after sleeve gastrectomy (SG). Despite this finding, many centers still perform routine early UGI contrast studies after SG. No series has evaluated the impact of eliminating this examination on the overall management of patients undergoing SG.

**Objectives:** To evaluate the impact of UGI contrast studies on SG management.

**Setting:** University hospital, France, public practice.

**Methods:** This study was an ambispective study of a cohort of patients who underwent primary SG between January 2014 and December 2014 ( $n = 267$ ). Two consecutive groups were compared: patients with routine UGI contrast studies on postoperative day 1 (UGI+ group,  $n = 154$ ) and patients without routine UGI contrast studies (UGI– group,  $n = 113$ ). The efficacy endpoint of the study was the overall impact of not performing routine UGI contrast studies (length of hospital stay, radiological data, rehospitalization data, and economic assessment).

**Results:** The overall complication rate was 9.3% and no deaths were observed. The GL rate was 1.5%. The mean hospital stay was 1.8 days (2.1 days versus 1.5 days;  $P = .57$ ). Routine UGI contrast studies did not detect any cases of GL or gastric stenosis. After UGI contrast studies, 56 patients complained of events related to UGI contrast studies (36.4%). A total of 27 computed tomography scans were performed during the first 3 postoperative months (16 in the UGI+ group (10.4%) versus 11 in the UGI– group (9.7%);  $P = .52$ ). Twelve patients were rehospitalized (7 and 5;  $P = .6$ ). The median length of rehospitalization was 7 days (7 and 5 days;  $P = .6$ ). Overall cost per patient during SG hospitalization was \$5,219 in the UGI+ group and \$3,678 in the UGI– group ( $P = .01$ ).

**Conclusion:** Eliminating routine UGI contrast studies was associated with decreased length of hospital stay and cost of SG procedures. Larger series are required to show that not performing routine UGI contrast studies has no impact on the postoperative complication rate and the management of these complications. (Surg Obes Relat Dis 2016;■:00–00.) © 2016 American Society for Metabolic and Bariatric Surgery. All rights reserved.

**Keywords:**

Bariatric surgery; Sleeve gastrectomy; Upper gastrointestinal contrast studies; Cost evaluation; Gastric leak

\*Correspondence: Professor J.M. Regimbeau, Service de chirurgie digestive, Hôpital Sud, CHU d'Amiens, Avenue René Laennec, F-80054 Amiens Cedex 01, France.

E-mail: [regimbeau.jean-marc@chu-amiens.fr](mailto:regimbeau.jean-marc@chu-amiens.fr)

<http://dx.doi.org/10.1016/j.soard.2016.10.011>

1550-7289/© 2016 American Society for Metabolic and Bariatric Surgery. All rights reserved.

Laparoscopic sleeve gastrectomy (SG) is a safe procedure for the surgical treatment of obesity with a mortality rate of .2% [1]. Along with postoperative hemorrhage and

56  
57  
58  
59  
60  
61

gastric stenosis, gastric leak (GL) is the most dreaded surgical postoperative complication of SG. According to a recent meta-analysis, the incidence of this complication is 2.2% [2].

Many institutions perform routine upper gastrointestinal (UGI) contrast studies within 24 hours of surgery looking for GL or gastric stenosis and to determine the need for urgent re-exploration. Several studies have shown the lack of value of routine UGI contrast studies following Roux-en-Y gastric bypass (RYGB) [3] and clinical signs (particularly tachycardia) should be preferred for postoperative observation [4].

The American Society for Metabolic and Bariatric Surgery guidelines state that the decision to perform routine versus selective UGI contrast studies following SG should be left to the discretion of the surgeon [5], although many recent studies have also shown that routine testing for gastric leak on postoperative day (POD) 1 or 2 [6–8] is not useful for the detection of GL and only 1 study identified tachycardia as a predictive factor of GL, but without the same level of evidence as for RYGB. The lack of value of performing early, systematic UGI contrast studies is due to the fact that GL is a rare event after SG and occurs after the 5th POD [9,10], and several different mechanisms are responsible for the development of GL, such as ischemic causes due to aggressive dissection of the posterior surface of the fundus [11], increased intraluminal pressure [12], and staple misfiring [13].

Routine UGI contrast studies on the days following SG delays oral feeding, can cause side effects responsible for an increased length of hospital stay (LOS), and is responsible for systematic and probably unnecessary irradiation of the patients. In our department, we have stopped performing routine UGI contrast studies after SG based on our experience with day-case SG, for which routine UGI contrast studies were responsible for 50% of our unplanned overnight admissions, while failing to demonstrate any complications [14].

The objective of this study was to evaluate the overall impact of eliminating routine UGI contrast studies over 2 consecutive periods.

## Methods

### Patient population

From January 2014 to December 2014, all consecutive patients who underwent primary SG ( $n = 267$ ) were included in this study. This was a comparative, ambispective study of patients undergoing primary SG, corresponding to a before/after study. From January 2014 to June 2014, we systematically performed UGI contrast studies on POD 1 to exclude the presence of GL. These patients constituted the UGI+ group ( $n = 154$ ). Our postoperative management changed in July 2014 after eliminating routine UGI contrast studies on POD 1 from the protocol (these patients constituted the UGI– group,  $n = 113$ ) (Fig. 1).

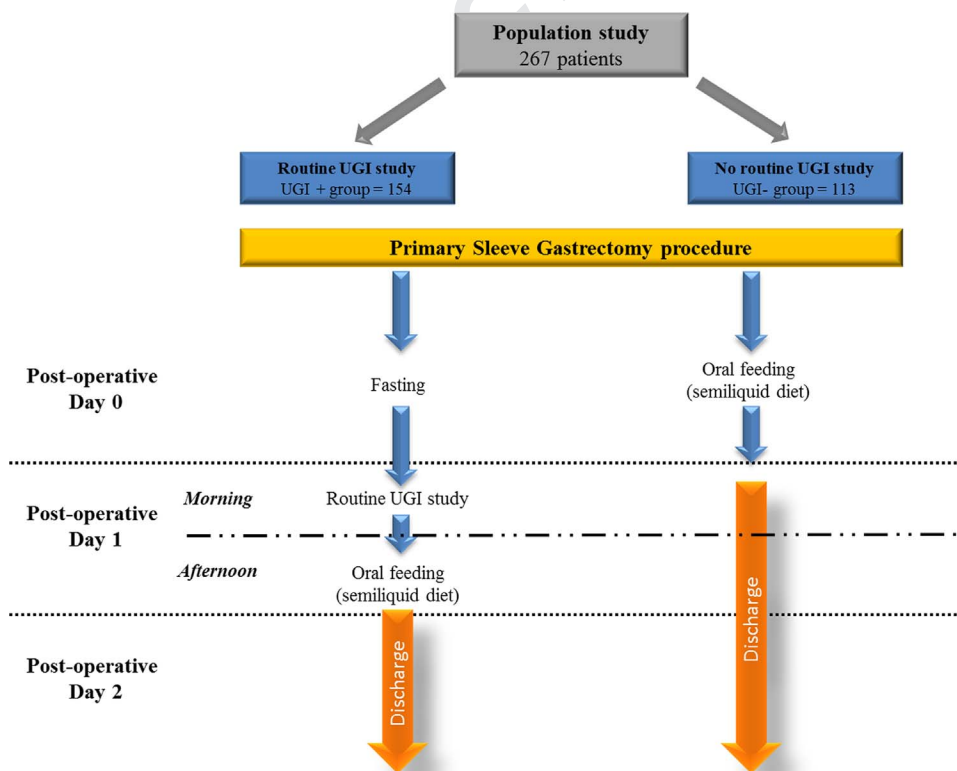


Fig. 1. Study design. UGI = upper gastrointestinal.

Download English Version:

<https://daneshyari.com/en/article/5661949>

Download Persian Version:

<https://daneshyari.com/article/5661949>

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