

Assessment of Patient Satisfaction after Laparoscopic Cholecystectomy at the Brazzaville University Hospital Center

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Abstract

Original Research Article

Objective: To evaluate the satisfaction of patients who underwent laparoscopic cholecystectomy at the Brazzaville University Hospital Centre and to identify the factors influencing this satisfaction. **Patients and methods:** A descriptive cross-sectional study was conducted from January to June 2025 among 33 patients who underwent laparoscopic surgery. Data were collected using a standardised post-operative questionnaire and analysed to identify factors associated with satisfaction. **Results:** The sample included 25 women (75.8%) and 8 men (24.2%), aged 16 to 66 years. Nineteen patients (57.6%) had sickle cell disease. The average length of hospital stay was 3.1 ± 1.4 days. Overall satisfaction was high: 58% very satisfied, 33.2% satisfied, 6.6% somewhat satisfied, 2.2% dissatisfied. Factors positively associated with high satisfaction ($n = 30$) included: mild post-operative pain (90%), hospitalisation ≤ 2 days (80%), return to normal activities ≤ 10 days (83.3%), and clear communication from the healthcare team (86.6%). The most common reasons for dissatisfaction were: poorly controlled pain (5.8%), prolonged wait for surgery (4.4%), and minor complications (3.6%). **Conclusion:** The results reveal a high level of post-surgical satisfaction. Improvements in pain management and preoperative organisation could further enhance the perceived quality of care at Brazzaville University Hospital. **Keywords:** satisfaction, cholecystectomy, laparoscopy, Brazzaville.

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INTRODUCTION

Laparoscopic cholecystectomy is the gold standard technique for the treatment of symptomatic gallstones [1]. It is associated with a low complication rate, reduced pain, short hospitalisation and a rapid return to normal activities [2]. In developing countries, this technique has gradually become established despite resource constraints, and its evaluation cannot be limited to clinical results.

Patient satisfaction is now a major indicator of the quality of hospital care, incorporating subjective dimensions such as pain perception, reception, information and the environment [3].

In developing countries, few studies have examined this dimension [4]. We therefore decided to carry out this study with the aim of assessing the satisfaction of patients who underwent laparoscopic cholecystectomy at the Brazzaville University Hospital

and identifying the factors associated with a positive perception of care.

PATIENTS AND METHOD

This was a descriptive cross-sectional study with retrospective data collection conducted in the digestive surgery department of the Brazzaville University Hospital Centre from 1 June 2024 to 31 May 2025 (12 months). We included in this study all patients aged 16 years or older who underwent laparoscopic cholecystectomy.

The variables studied were:

- General characteristics: age, sex, sickle cell status
- Length of hospitalisation (in days)
- Overall level of satisfaction: very satisfied, satisfied, somewhat satisfied, dissatisfied
- Factors associated with satisfaction: pain, length of hospital stay, resumption of activities, communication

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- Points of dissatisfaction: poorly controlled pain, waiting time, complications

The data were collected and analysed using Excel 2020 software.

RESULTS

General characteristics of the population During the study period, 33 patients underwent laparoscopic cholecystectomy. These included 25 women (75.8%) and 8 men (24.2%), aged between 16 and 66. Nineteen patients (57.6%) had sickle cell disease. The main reason for consultation was pain in the right hypochondrium and/or epigastrium. Clinically, abdominal palpation revealed tenderness in the hypochondrium and/or epigastrium in all of our patients

- All patients underwent abdominal ultrasound, which revealed gallstones.

- All patients were classified as ASA I.
- The main indication for surgery was symptomatic gallstones.
- All patients underwent laparoscopic surgery.
- The cholecystectomy specimen with black stones
- The average length of hospital stay after surgery was $3.1 \text{ days} \pm 1.4$.

The postoperative course was uneventful in 96.4% of cases. The postoperative complication was infection at the supraumbilical trocar site. There were no postoperative deaths.

Patient satisfaction

Overall level of satisfaction

Level of satisfaction	Number	Percentage (%)
Very satisfied	19	58
Satisfied	11	33,2
Somewhat satisfied	2	6,6
Dissatisfied	1	2,2

Factors associated with high satisfaction (n = 30)

Factor	Number	Percentage (%)
Mild post-operative pain	27	90
Hospital stay ≤ 2 days	24	80
Resumption of activities ≤ 10 days	25	83,3
Clear communication from the healthcare team	26	86,6

Reported points of dissatisfaction

Reason for dissatisfaction	Number	Percentage (%)
Poorly controlled post-operative pain	2	5,8
Long wait before surgery	1	4,4
Minor complication (infection)	1	3,6

DISCUSSION

In our series, laparoscopic cholecystectomy was performed on 33 patients, with a clear predominance of females (75.8%). This predominance is well described in the literature, as gallstones are 2 to 3 times more common in women, mainly due to hormonal factors such as oestrogen exposure, multiparity and oral contraceptive use [5, 6]. Several African studies also report a female predominance in cholecystectomy series, with proportions similar to ours [7, 8].

The age of the patients ranged from 16 to 66 years, which corresponds to the classic data that gallstones occur preferentially between the ages of 30 and 60 [9]. The presence of an adolescent patient in our series highlights that lithiasis is not exclusively limited to adults, particularly in the context of haematological conditions such as sickle cell disease.

In fact, more than half of our patients (57.6%) were sickle cell patients. This high proportion reflects the high prevalence of sickle cell disease in sub-Saharan Africa and confirms its major role in the early onset of gallstones [10, 11]. Pigment stones, often black as observed in our series, are frequently associated with chronic haemolysis, particularly in sickle cell patients [12]. Sickle cell disease is therefore a significant risk factor that warrants systematic screening for gallstones in these patients.

Clinically, pain in the right hypochondrium and/or epigastrium was the main reason for consultation. This presentation is classic and described as the most common manifestation of symptomatic gallstones [13]. Abdominal ultrasound, performed in all our patients, confirmed the diagnosis of gallstones. This examination remains the gold standard for the diagnosis of gallstones, with a sensitivity of over 95% [14].

Laparoscopy was used in 100% of cases, confirming its status as the gold standard in the treatment of gallstones [15].

The average length of hospitalisation after surgery was 3.1 ± 1.4 days, which is comparable to African and international series, where the average length is generally 2 to 4 days [7, 16]. The postoperative outcome was favourable in 96.4% of cases, with only one minor infectious complication. The absence of mortality in our series is consistent with the extremely low mortality rates reported in the literature for this surgery, estimated at less than 0.1% [16].

Patient satisfaction after laparoscopic cholecystectomy at the Brazzaville University Hospital is generally high, with more than 91% of patients reporting satisfaction or high satisfaction. This level of satisfaction is comparable to that observed in other African facilities, particularly in Guinea and Senegal [17, 18].

Factors influencing satisfaction

Pain management is the predominant factor. Indeed, 90% of patients who were very or fairly satisfied reported mild pain. These results corroborate data in the literature that identify post-operative pain as a determining factor in the hospital experience [19]. Multimodal management, incorporating effective painkillers and clear information, remains essential.

A hospital stay of ≤ 2 days (80%) and a rapid return to normal activities (83.3%) are also important factors in satisfaction. These indicators reflect the effectiveness of the laparoscopic technique, but also good post-operative coordination.

The quality of medical communication (86.6%) also emerges as a major factor, in line with the current recommendations of the Haute Autorité de Santé (French National Authority for Health), which emphasise the importance of listening and transparency in the caregiver-patient relationship [3].

Reasons for dissatisfaction

Poorly controlled pain (5.8%), prolonged preoperative waiting times (4.4%) and minor complications (3.6%) show that there is room for improvement. Although these percentages remain low, they indicate a need to optimise analgesic protocols and operating procedures.

CONCLUSION

Patient satisfaction after laparoscopic cholecystectomy at Brazzaville University Hospital is generally high. The main determinants are: well-controlled pain, effective communication, a short stay and a rapid return to normal activities. However, targeted efforts must continue to improve pain management and reduce operating times.

Conflicts of interest: The authors declare no conflicts of interest

Authors' contributions: All the authors actively participated in the drafting and correction of the article. They have read and approved the final version of the manuscript

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