

**ANALYSIS OF
THE CLINICAL
EPIDEMIOLOGICAL
PROFILE OF PATIENTS
SUBMITTED TO
VIDEOLAPAROSCOPIC
CHOLECYSTECTOMY IN
A TEACHING HOSPITAL
IN JUIZ DE FORA –
MINAS GERAIS**

Lara Ferreira Camacho

Faculdade de Ciências Médicas e da Saúde de
Juiz de Fora, Juiz de Fora - Minas Gerais
<http://lattes.cnpq.br/46632580955631655>

Letícia de Oliveira Zambeli

Faculdade de Ciências Médicas e da Saúde de
Juiz de Fora, Juiz de Fora – Minas Gerais
<http://lattes.cnpq.br/3128630731199542>

Ana Luisa Ervilha Sabioni

Faculdade de Ciências Médicas e da Saúde de
Juiz de Fora, Juiz de Fora – Minas Gerais
<http://lattes.cnpq.br/4465761426927371>

Amanda Brandão Lopes

Faculdade de Minas de Belo Horizonte, Belo
Horizonte – Minas Gerais
[http://buscatextual.cnpq.br/buscatextual/
visualizacv.do](http://buscatextual.cnpq.br/buscatextual/visualizacv.do)

Laís Assunção Vilefort

Faculdade de Minas de Belo Horizonte, Belo
Horizonte – Minas Gerais
<http://lattes.cnpq.br/5619791900411702>

All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).



Abstract: Cholecystectomy is the surgery to remove the gallbladder, which has a low mortality rate and can be performed in two ways: by incision in the abdominal cavity (open) or by videolaparoscopy (closed). The closed technique allows for extraction of the gallbladder with minimal incisions in the abdomen. The objective is to identify the clinical epidemiological profile of patients who underwent laparoscopic cholecystectomy and correlate the influence of comorbidities, gender and age with the prognosis in a teaching hospital in the city of Juiz de Fora – Minas Gerais; the analysis contributed to population-based surveys with data to monitor disease risks and impairments. The structured method is based on a cross-sectional descriptive study in which patients over 18 years of age who underwent laparoscopic cholecystectomy and excluded pregnant women, emergencies/emergencies and incomplete medical records; a non-probabilistic sample was used, respecting the inclusion and exclusion criteria. Data collection took place retrospectively from the analysis of medical records from January 2019 to January 2020. The study was carried out after submission and approval by the C.E.P. (Research Ethics Committees) according to resolution 466/12 of the National Health Council and approved with the opinion 4,780,397. Furthermore, the results obtained were based on the evaluation of 150 medical records, of which 73.3% corresponded to female patients and 26.6% to male patients. Regarding age, 86 patients were under 60 years of age. In addition, 70% of patients had at least one comorbidity. The incidence of intraoperative complications was 1.3%, postoperative 1.3% and mortality 0%. It is concluded that the clinical epidemiological profile corresponds to that shown in the literature, with older age, male gender and the presence of comorbidities being predictive factors of a worse prognosis.

Keywords: Cholecystectomy, Videolaparoscopy, Prognosis, Epidemiology.

INTRODUCTION

A cholecystectomy is a surgery that consists of a removal of the gallbladder from the bile duct, with surgery for digestive treatment more performed in the world. It is estimated that 15% two Brazilians over 20 years of age present cholecystitis, and 35% two patients will become symptomatic, necessitating this procedure. It is indicated in cases of cholecystitis, cholelithiasis, choledocholitis, pancreatitis of biliary origin or gallbladder tumor, being common services of general surgery and digestive equipment (COELHO, et al., 2019).

This surgery has a low mortality rate and can be performed in two ways: by incision in the abdominal cavity (open) or by videolaparoscopy (dated). A videolaparoscopic cholecystectomy (CVL) is considered standard for both the initial approach and the complications, it allows gallbladder removal, with minimal incisions in the abdominal region, reducing the surgical and hospital time, also enabling early return to activities daily (LAU, et al., 2006).

The population submissive to cholecystectomy has a predominance of female sex and a greater incidence of gallbladder disease in the sixth decade of life. Embora divergent, recent investigations apontam that due to the delay in seeking medical assistance, we are approached at a time of greater gravity, improvement or prognosis (HANGUI, et al., 2004). Therefore, other studies do not have a relationship between sex and various disorders. A progressively advanced and independent factor as a predictor of greater operative time and subsequent illnesses, due to the fact that, nessa população, a vesicular doença appears more complex (COELHO, et al., 2018).

The prevalence of comorbidities was 58.8%, with SAH (systemic arterial hypertension), obesity and DM (diabetes mellitus) being the most common. There are low rates of intra and postoperative complications, of open surgery, need for UTI and death, recently entering into meta-analysis or low risk of elective procedure carried out in safe conditions. Among the factors predisposing to previous failure, it stands out to be advanced (WILSON, et al., 2010).

In this sense, since it is a very common pathology, such as videolaparoscopy or the standard method of addressing acute cholecystitis, it is important to assess both surgical and postoperative complications and correlate these data with or profile of the patient found (RÊGO, et al., 2003).

O present study seeks to identify or epidemiological clinical profile two patients who underwent videolaparoscopic cholecystectomy in an ensino hospital settled in Juiz de Fora and to assess risk factors that interfere with postoperative effects.

METHOD

The structured method was based on a cross-sectional descriptive study that included patients over 18 years of age, undergoing a cholecystectomy by videolaparoscopy and excluding pregnant women, under 18 years of age, history of more than 3 cholecystitis, emergencies / emergencies, Gastroduodenal cancer, bile duct neoplasms, malignancies and incomplete medical records; A demonstration of the non-probabilistic type was undertaken, respecting the inclusion and exclusion criteria. A data collection was made retrospectively from the analysis of the records of the period from January 2019 to January 2020. The study was carried out after submission and approval of the zip code, according to resolution 466/12 of the National Health Council and approved as or seem 4,780,397.

Among the instruments and measurements, a data collection instrument was elaborated to obtain the following variables related to the profile of two cases: Sex, history and comorbidities, and the relationship between the years and years analyzed. These will be: Conversation tax for open surgery, hospital stay, need for an intensive care unit (ICU) and post-operative mortality. Analysis will be restricted to data that have occurred not the same internally.

Or present study appears to be a minimum risk, related to stigmatization as disclosure of information when houver access given years of identification; invasion of privacy; Disclosure of confidential data, risk of security for two records. In order to minimize the foreseen risks, limit or access prompt years only for the time, quantity and quality of specific information for the investigation, guarantee no violation and integrity of two documents (physical damage, copies, shavings) and ensure confidentiality and privacy; According to item II.6, given Resolution CNS 466/12. Among the benefits presented, the studies and population-based surveys are very important to monitor the risks of education and serious compromises, or that allow the identification and categorization of popular subgroups exposed to a greater risk and help not to develop more efficient interventions. It must be emphasized that this project will contribute in a relevant way, not only to the scientific community, but also to the society. In addition, or study possible a quantitative approach, the data analysis was carried out by a process. For a quantitative analysis, a data bank was prepared using Excel spreadsheets.

To analyze two data from a teve research or statistic treatment with techniques of descriptive analysis, analysis of variance and Pearson correlation adjusted at a level of 0.05. The result obtained was based on the analysis of two patients.

RESULTS

Figure 1 demonstrates that laparoscopic cholecystectomy is a procedure performed more frequently in women, being these represented in 73% of the analyzed cases, reaffirming the data found in the literature; on the other hand, men are present in only 27% of the analyzed cases and it was not possible to establish a causal relationship between the sexes and the presence of the analyzed outcomes.

Figures 2 and 3 show, respectively, the incidence of complications in the entire population undergoing surgery, as opposed to the percentage analysis of the outcomes observed in each event. It is noteworthy that in only 11% of patients undergoing the surgical procedure had any type of complication, reaffirming the success of this procedure and its benefits. Among these laparoscopic procedures, the incisions are usually up to one centimeter or one and a half centimeters and require between one and two stitches to be closed, reducing the need for dressings and facilitating healing. By avoiding less exposure of internal areas to bacteria in the operating room and in the daily postoperative period, laparoscopy reduces the chance of complications from infections. The patient tends to recover and be discharged from the hospital faster than those undergoing conventional procedures, among other benefits.

Therefore, when breaking down the 11% of the complications presented, it is possible to highlight that 81% are represented by length of stay > 1 days, 10% conversion to open surgery and need for an intensive care unit, on the other hand, there were no deaths in the institution. Furthermore, such data presented are similar to those presented in other articles, making the hospital under analysis an institution that guarantees a good prognosis for the patient.

Figure 4 reveals a higher incidence of procedures in patients under 60 years of age, with this population representing 57% of the analyzed population; on the other hand, the elderly contributed 43% of the sample. However, when analyzing the risk of developing complications, it is possible to see that the elderly represent 52% of patients who had intraoperative and postoperative complications, accounting for 100% of those who needed the intensive care unit; which corroborates the global trend.

Figure 5 represents a correlation between the presence of comorbidities and the genders of the sample. The global incidence of comorbidities presents 70% of the entire population analyzed, thus, only 30% did not have any comorbidities during the proposed period for data collection. Of these 70%, at least 52.6% had a diagnosis of systemic arterial hypertension (SAH) and 17.3% had diabetes mellitus (DM). Among the other comorbidities analyzed, it is possible to highlight the presence of obesity, depression and hypothyroidism. Performing a correlation between genders, it is possible to infer that 59 women and 20 men had SAH (systemic arterial hypertension); however, when analyzing DM (diabetes mellitus), it is found that this disease was present in 17 women and 9 men. Furthermore, regarding the presence of other comorbidities in addition to SAH (systemic arterial hypertension) and DM (diabetes mellitus), these occur in 41 women and 9 men.

DISCUSSION

With regard to gender, it is possible to infer that males, although representing 27% of the population analyzed, translates into 50% of patients who needed the ICU (intensive care unit), however, the need for conversion to open surgery was not observed in this population in question. When analyzing the

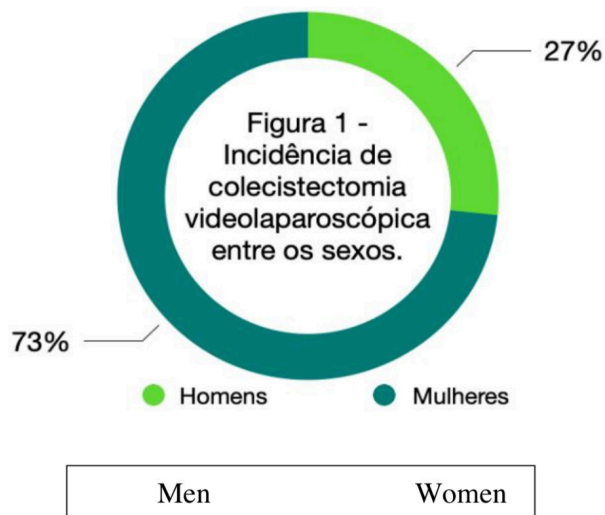


Figure 1. Incidence of laparoscopic cholecystectomy between genders.

Source: Own authorship, 2021.

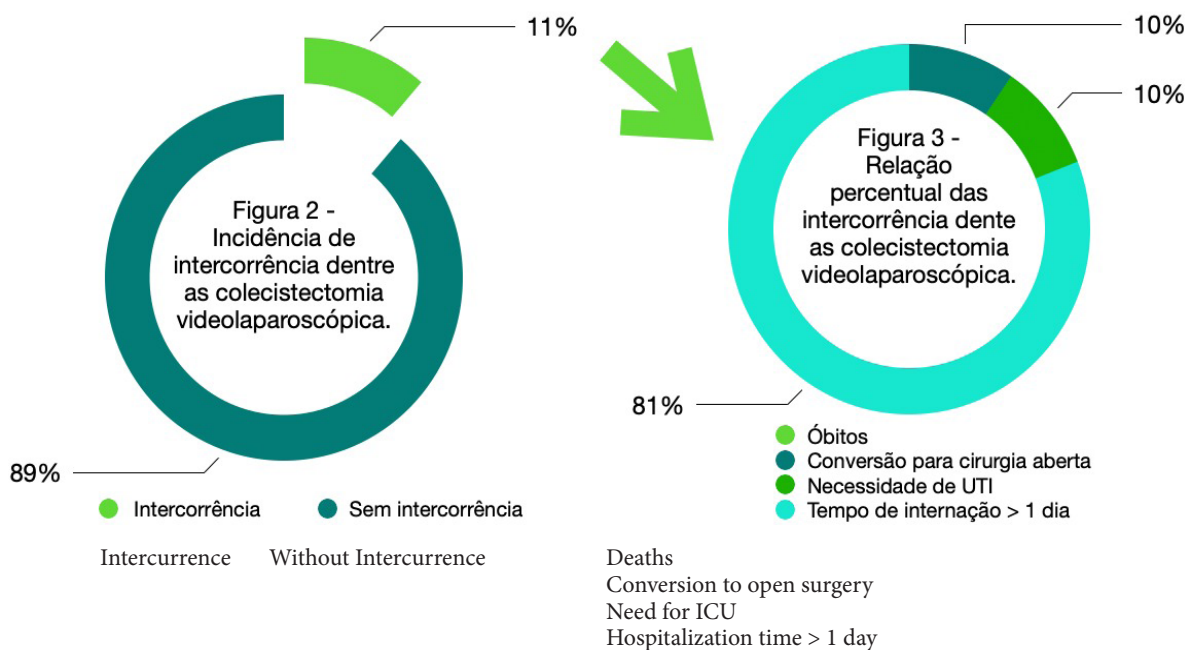


Figure 2. Incidence of complications among cholecystectomies videolaparoscopic

Source: Own authorship, 2021

Figure 3. Percentage relation of complications among videolaparoscopic cholecystectomies.

Source: Own authorship, 2021.



Figure 4. Incidence of laparoscopic cholecystectomy between ages.

Source: Own authorship, 2021.

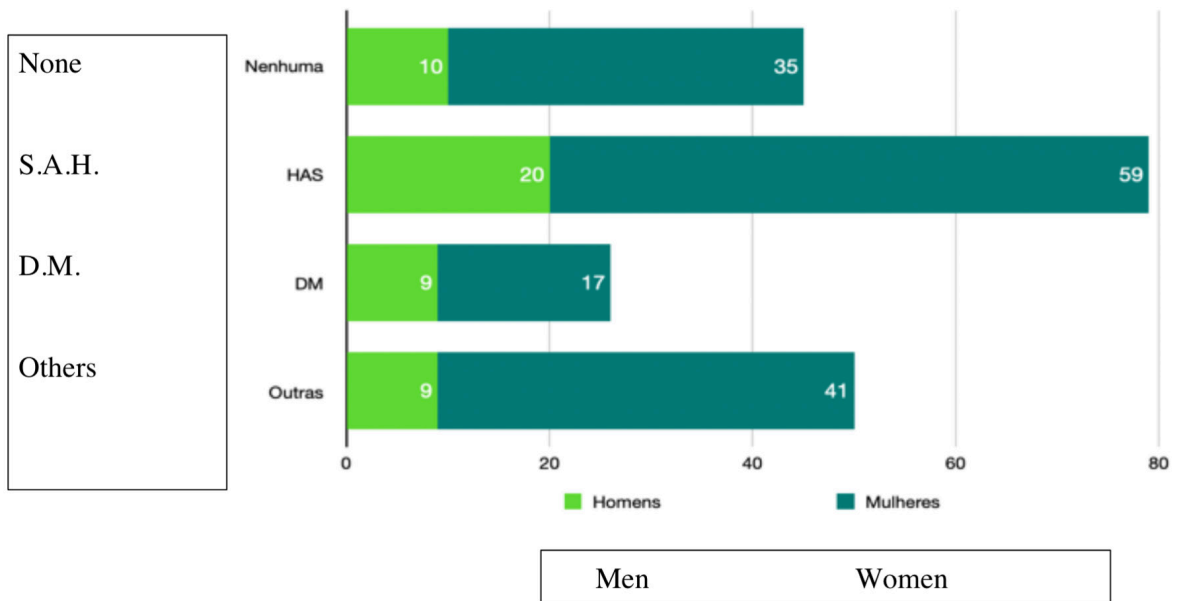


Figure 5. Presence of comorbidities between the sexes of patients undergoing laparoscopic cholecystectomy.

Source: Own authorship, 2021.

length of stay, a rate of approximately 35% of hospitalizations longer than 24 hours is found. On the other hand, females were present in 100% of the sample that required surgical conversion and in 50% of those that needed an intensive care unit, accounting for 6;5% of hospitalizations that lasted more than one day.

The cutoff point proposed for the age group of the study in question was divided into two groups: under 60 years and over 60 years. Therefore, the younger population was present in 100% of the cases that promoted the conversion from surgery to an open procedure, whereas, in contrast, the older population was present in 100% of the patients who required the ICU (intensive care unit). With regard to the length of stay, counting those who needed more than one day in the ward, the younger and older population represented, respectively, 47% and 53% of cases.

Regarding the distribution, it is observed that the presence of comorbidities plays a crucial role in predicting the possible risk of the patient in question developing at least one of the complications presented. Although statistically the existence of these comorbidities in the population analyzed presents only 70% of the entire sample; this condition is present in at least 82% of the complications presented, being present in 100% of patients who required the ICU (intensive care unit) and conversion to open surgery. When considering separately patients with SAH (systemic arterial hypertension), DM (diabetes mellitus) and the presence of at least one comorbidity, it is possible to infer how each analyzed risk factor contributes to the observed outcomes.

Systemic arterial hypertension (SAH) is a comorbidity present in 52.5% of the sample under analysis, but when investigating the risk of developing at least some outcome, this condition is present in 71.4% of cases, and in group that required surgical conversion

and from the ICU (intensive care unit), SAH (systemic arterial hypertension) was present in 100% and 64.7% of the patients who needed to remain hospitalized for a longer time, standing out as an important predictor. Diabetes mellitus (DM) represents 17.3% of the sample, however this group is equivalent to 52.3% of at least one outcome with complications presented in the study, this percentage being equivalent to 100% need for ICU (intensive care unit), 50% conversion for open surgery, and 47% of admissions that required more than one day. Furthermore, when analyzing the presence of other comorbidities, this correlation is not as evident when compared to SAH (systemic arterial hypertension) and DM (diabetes mellitus), as they represent 50% of the cases requiring ICU (intensive care unit) and surgical conversion, and 35.3% of the patients who needed to remain larger hospitalized time.

CONCLUSION

It is concluded that the clinical epidemiological profile corresponds to that shown in the literature, with advanced age, male gender and the presence of comorbidities predicting a worse prognosis for the outcome of the patient undergoing videolaparoscopic cholecystectomy.

REFERENCES

- COELHO, J. C. U. et al. **Does male gender increase the risk of laparoscopic cholecystectomy?** Arquivos Brasileiros de Cirurgia Digestiva, Curitiba, v. 32, n. 2. p. 2-5, 2019.
- COELHO, J. C. U. et al. **Results of laparoscopic cholecystectomy in the elderly.** Revista do Colégio Brasileiro de Cirurgiões, Curitiba, v. 45, n.5, p. e2020, 2018.
- HANGUI, R.M.G. et al. **Complicações pós-operatórias de colecistectomias: análise comparativa em relação ao sexo.** Revista do Colégio Brasileiro de Cirurgiões, São Paulo, v.31, n. 1, p.57-63, 2004.
- LAU H. et al. **Early versus delayed-interval laparoscopic cholecystectomy for acute cholecystitis: a metaanalysis.** Surgical endoscopy, Fort Lauderdale, v. 20, n. 1, p. 82-87, 2006.
- RÊGO, R. E. C. et al. **Tratamento cirúrgico da litíase vesicular no idoso: análise dos resultados imediatos da colecistectomia por via aberta e videolaparoscópica.** Revista da Associação Médica Brasileira, São Paulo, v. 49, n. 3, p. 293-239, 2003.
- WILSON, E. et al. **Cost-utility and value-of-information analysis of early versus delayed laparoscopic cholecystectomy for acute cholecystitis.** British Journal of Surgery, Londres, v. 97, n. 2, p. 210-219, 2010.