

A Retrospective Analysis of the Outcomes of Cholecystectomies Done At AIC Kijabe Hospital

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01. Introduction

Gall-bladder disease is a global problem. Gallstones have been shown to be prevalent in 10–12% of Europeans and 5.2 - 10% in some African populations. Most of these tend to be asymptomatic; approximately 80% [2]. Given time, gallstones can lead to various complications including: biliary colic, choledocholithiasis, cholecystitis and ascending cholangitis, pancreatitis, gallbladder cancer and gallstone ileus [1]. Most of these are indications for performing a cholecystectomy.

Risk factors for gall-bladder disease include increasing age, female gender, pregnancy, obesity, ethnicity (Native American and Latin American), haemolytic disorders, family history, Crohn's disease, cirrhosis and certain drugs [4]. The prevalence of obesity (BMI above 30kg/m²) is rising globally and in Africa and is likely to contribute to a higher prevalence of gall-bladder disease [5]. The prevalence among Kenyan adults in 2015 was 8.9% and rose significantly in 2022 to 10.8%. This continues to vary greatly by gender with the prevalence among men reported as 4.2% and 17.3% among women. The prevalence among adults is expected to continue rising to 18% by 2035 [7].

Laparoscopic cholecystectomy is the global gold-standard for gall-bladder surgery. Unfortunately, majority of data on cholecystectomy outcomes is from sources outside of Africa.

02. Objectives

The Primary objective of the study was to evaluate the outcomes of the patients undergoing cholecystectomy; including the post-operative complications.

The secondary objectives were to evaluate the frequency at which the surgery is being performed and the patient population encountered; and to compare the outcomes of patients undergoing open versus laparoscopic cholecystectomies.

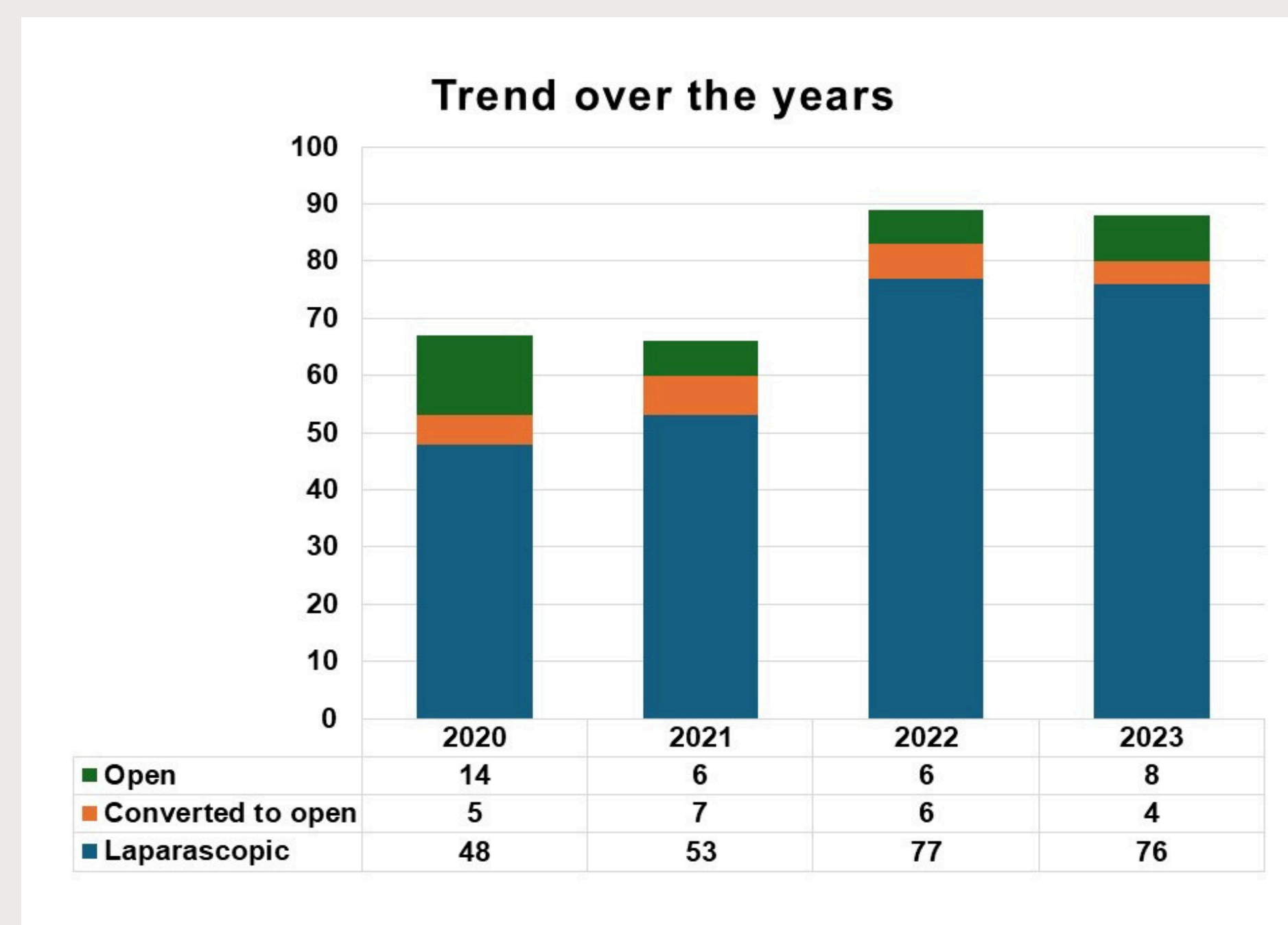
03. Methodology

This is a retrospective cross-sectional analysis of open and laparoscopic cholecystectomies performed in AIC Kijabe hospital between January 2020 and December 2023. Data collection was done by reviewing patient electronic medical records. A total of 310 patient files were evaluated . Analysis was done using statistical software.

04. Results

Majority (84%) of these patients were female. 16% were male. Most of the patients were adults (95%); who had an average age of 45yrs. Indications for paediatric cholecystectomies included biliary colic, gallstone pancreatitis and acute cholecystitis.

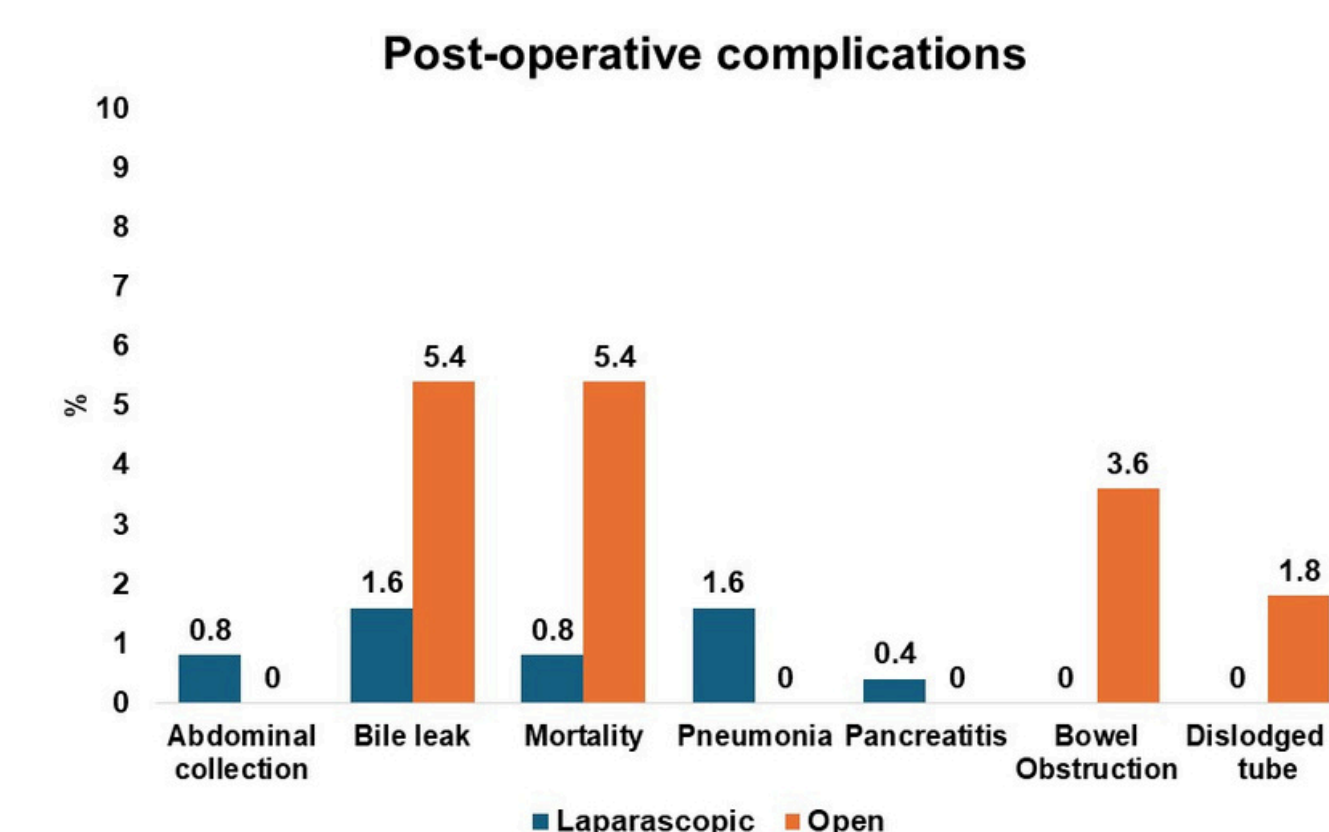
82% of cholecystectomies were performed laparoscopically, while 18% were open. 7% of the cases started out as laparoscopic cholecystectomies but had to be converted to open due to adhesions, bleeding or poor visibility. 93% of submitted cholecystectomy specimens were reported as benign.



Key findings:

- The Overall average length of stay was 2.0 days. **Patients who underwent an open cholecystectomy had a longer hospital stay** (5.0 vs. 2.0 days, $p = 0.001$)
- The Overall post-operative complication rate was 7.1, while the reported rate of complications in literature is 3% [12]

The **complication rate was lower among patients who underwent laparoscopic cholecystectomy compared to open (5.1% vs. 16.1%, $p = 0.001$).**



05. Conclusion

A laparoscopic approach to cholecystectomy should be encouraged as it is safe, offers less morbidity, results in a quicker recovery and shorter hospital stay; which has implications for patients and healthcare systems.

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06. References

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