Minireview Article

Impact of COVID -19 on Gallstones Patients

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Abstract

Background: it is well known that most of the healthcare centers have redistributed their material and human resources to face the health issues associated with COVID-19 pandemic. ***Aims***: in the current study, we aimed to investigate the impact of COVID-19 pandemic on gall stone patients. ***Methods***: comparison was conducted in our own center regarding gallstones related activities before, during and after the pandemic. We reviewed also the number of elective laparoscopic cholecystectomies during these periods. Data were obtained from the hospital recording system. ***Results***: we found a significant increase in the number of gall stones related complications during the COVID-19 pandemic when compared with non-pandemic periods. ***Conclusion***: It is recommended that laparoscopic cholecystectomies should be considered whenever possible, taking all relevant measures to avoid contagion of patients and the health team.

Keywords: Gallstone disease, cholecystectomies, healthcare, COVID-19

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Background:

Gallstone disease is considered the most common gastrointestinal disorder for which patients are admitted to hospitals which is affecting about 10% of people in Western society [1, 2, 3]. Although, the majority of people with gall stones are asymptomatic, acute cholecystitis develops in 1-3% of patients with symptomatic gall stones [4]. It was estimated that the risk of developing acute complications that require hospitalization (pancreatitis, acute cholecystitis, gall bladder perforation, ileus and choledocholithiasis) is about 1-3% per year [5].

Although the management of gallstones has undergone some modifications because of the COVID-19, laparoscopic cholecystectomy remains the gold standard [6]. It is well known that most of the healthcare centers have redistributed their material and human resources to face the health issues associated with this pandemic. The management of gallstones has been affected by the pandemic as most of the centers adopted more non-surgical approaches for the management of gallstones related complications and the majority of the elective cholecystectomy operations have been rescheduled [7].

The British Intercollegiate General Surgical Guideline on COVID-19 stated that during the COVID-19 pandemic, non-surgical treatment should be applied whenever possible (as in the case of early appendicitis and acute cholecystitis) [8, 9]. Other surgical societies, such as the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES), have recommended a more patient- and hospital-centered approach ([8, 10].

In the current study, we compared our own center gallstones related activities before, during and after the pandemic to evaluate the impact of the pandemic on gallstones patients.

Materials and methods:

We carried out a retrospective review in our South Tees Hospitals NHS Foundation Trust. We collected the number of emergency admissions of patients who had gallstones related complications (mainly; pancreatitis, acute cholecystitis, gall bladder perforation, ileus and choledocholithiasis) within two months during the COVID-19 pandemic and comparing it with a similar two months in 2019 before the pandemic. These numbers are compared with another two months (June and July 2021) when most of our elective surgeries have been restored but still under control. We reviewed also the number of elective laparoscopic cholecystectomies during these periods. Data were obtained from the hospital recording system and from the daily ward lists.

Table 1: Number patients admitted with GS related complications before, during and after the pandemic

Presentation	Feb & Mar 2019	Feb & Mar 2021	June and July 2021
Acute Cholecystitis	28 (50.9%)	39 (57.4%)	29 (64.4%)
CBD stone	11 (20%)	17 (25%)	2 (4.4%)
GB perforation	7 (12.7%)	6 (8.8%)	2(4.4%)
Pancreatitis	9 (16%)	5(7.4%)	10 (22.2%)
GS ileus	0	1(1.5%)	2(4.4%)
Total	55	68	45

Results:

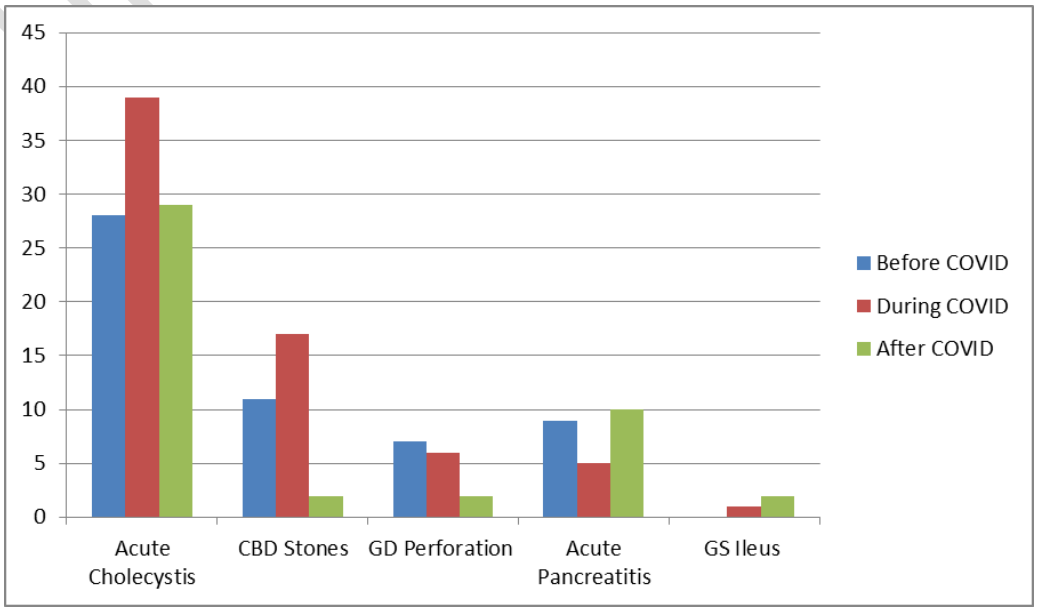

Chart 1: Comparison of the GS related admissions before, during and after the pandemic

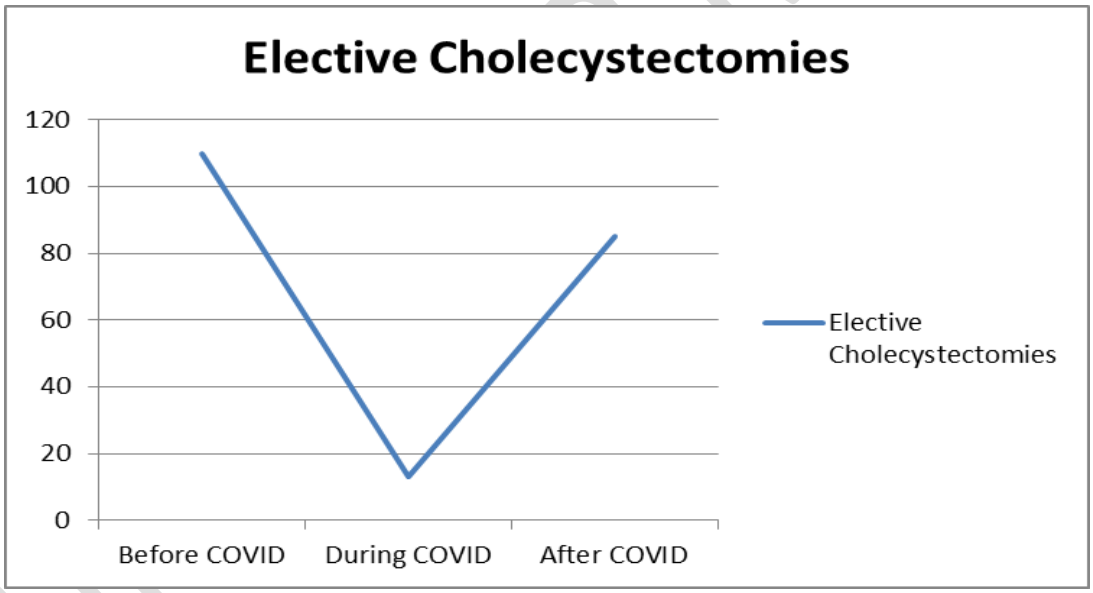

Chart 2: Comparison of number of elective LC before, during and after the pandemic

We found that the total number of admissions of patient with complications related to gallstones has increased from 55 before the pandemic within two months to 68 during similar two months during the pandemic. This number has decreased again to 45 when most of the elective services have been restored. The details of the findings are present in table 1 and chart 1.

On the other hand, the number of elective laparoscopic cholecystectomies during the same two months in 2019 before the pandemic was 110, this number decreased to 13 during similar two months during the pandemic. Again, this number has increased to 85 during the period from June-July 2021 (chart 2).

Conclusion:

The impact of COVID-19 on gallstone patients is obvious. With the delay in most of the gall bladder elective surgeries, the number of patients admitted with gallstone related complications has increased. With restoration of most of the elective healthcare services, these numbers have returned to the pre-COVID levels. Thus, the study recommend that laparoscopic cholecystectomies should be considered whenever possible, taking all relevant measures to avoid contagion of patients and the health team.

Ethical Approval:

As per international standard or university standard ethical approval has been collected and preserved by the authors.

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