



Original Article

Gastrointestinal Cancer Surgeries in COVID-19 Pandemic, Pir Abdul Qadir Shah Gelani (GIMS), Hospital, Gambat

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ARTICLE INFO

Key Words:

Gastrointestinal surgery, gastrointestinal carcinoma, coronavirus disease, pandemic

How to Cite:

Khan, R. ., Ahmed, A. ., Khan, R. ., Masroor Bhatti, A. ., Inayat Hussain, Z. ., & Qasim, M. (2022). Gastrointestinal Cancer Surgeries in COVID-19 Pandemic, Pir Abdul Qadir Shah Gelani (GIMS), Hospital, Gambat: Gastrointestinal Cancer Surgeries in COVID-19. *Pakistan BioMedical Journal*, 5(7). <https://doi.org/10.54393/pbmj.v5i7.522>

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Received Date: 15th May, 2022Acceptance Date: 3rd July, 2022Published Date: 31st July, 2022

ABSTRACT

The turnover of gastrointestinal carcinoma is high and mostly undergoes surgery / excision. Coronavirus disease, shortly named as COVID-19, as it started during 2019. It was declared as a pandemic by the World Health Organization in March, 2020. During this period, there are many patients who had delay in surgeries due to the high risk of contamination of patient of surgeon with COVID-19 and this would increase the risk of complications. **Objective:** To find the frequency of gastrointestinal cancer surgery in Pir Abdul Qadir Shah Gelani (GIMS), Hospital, Gambat. **Methods:** This descriptive cross sectional study was conducted from 14th March 2020 to 31 December 2021 in the surgery department of Pir Abdul Qadir Shah Gelani (GIMS) Hospital, Gambat. Total patients with both genders presenting with age 35 to 75 years and histopathological diagnosed with gastric cancer disease were included in this study. Meanwhile patients with age less than 35 years or more than 75 years those with renal failure and liver failure were excluded from study. Data were entered in SPSS version 21.0. Age, were presented ad mean and standard deviation. Categorical data like gender, upper GI, lower GI, operated cases were presented as frequencies & percentage, with histopathological findings were presented in diagram. **Results:** In our study, total 63 patients enrolled. The tumor was upper GI diagnosed in 38 patients and the lower GI diagnosed in 25 patients, 30 cases operated successfully and 17 cases in upper GI and 13 cases in lower GI. In 38 upper GI tumors, 11 were located in esophagus, 15 were in stomach, 8 were in pancreas, 2 were in per ampulla and 2 were duodenum. **Conclusion:** It has been concluded that during COVID-19 pandemic, there is a need for clear guidelines in every surgical unit to ensure both patient and staff safety.

INTRODUCTION

Pathophysiologically, there are two types of stomach cancers: intestinal and diffuse. Chronic gastritis progresses from atrophic gastritis to intestinal metaplasia and dysplasia as a result of an inflammatory process. Older guys are more likely to have this kind than younger ladies and people under the age of 50. Gastric H. pylori infection is closely linked to this kind, just as it is to the intestinal one. Gastric cancer incidence and death vary greatly by geography and are largely reliant on nutrition and Helicobacter pylori infection [1]. Gastric cancer is a deadly disease that afflicts a huge percentage of Brazilians. Gastric cancer is the fourth most prevalent cancer in Brazil, according to the Brazilian Ministry of Health and the

National Cancer Institute, with a rising prevalence from 35 to 40 years [2]. Upper gastrointestinal surgery, which covers the operational management of the most complicated malignancies in alimentary surgery, is made up of the independent disciplines of oesophagogastric and hepato-pancreato-biliary surgery [3]. Malignancies of the large intestine (colon and rectum) and the anus are referred to as lower GI cancers [4]. The severe acute respiratory syndrome coronavirus 2 is the cause of the COVID- 9 pandemic, also known as the coronavirus (SARSCoV-2)[5]. As of the third week of January 2021, more than 84.6 million cases and 1.83 million deaths associated with COVID-19 had been confirmed [6]. It was firstly exposed in Wuhan, China,

in December of this year. Fever, cough, & shortness of breath(dypnea)are the most common symptoms of COVID-19, while other symptoms such as fatigue, headache, and muscle pain1are also1common [7]. Extra-pulmonary symptoms can appear early in the course of the disease.GI symptoms like as anorexia, nausea, vomiting, abdominal pain, or diarrhea can appear early in a pandemic, but they are rarely the only presenting sign; GI symptoms are linked to poor clinical outcomes, including a greater risk of mortality [8]. Due to the disease's transmission pathway, patients and, in particular, hospital workers who were at high risk, were subjected to strict preventative measures [8, 9]. Asymptomatic patients can spread the virus by droplet and contact transmission. Nurses, doctors, patients, and their loved one's safety come first [10, 11]. While the COVID-9 pandemic continues to put strain on healthcare systems throughout the world, other chronic and acute illnesses continue to plague people. Some of these illnesses, such as many malignancies, need prompt surgical intervention [12]. The rationale of the study to find the frequency of different gastrointestinal cancer surgery during the COVID-19 pandemic and determine the success of those surgeries in terms of less complications and mortality of patients after surgery during COVID-19 pandemic.

METHODS

This descriptive cross sectional study was conducted from 14th March 2020 to 31 December 2021 in the Surgery department of Pir Abdul Qadir shah Gelani (GIMS), Hospital, Gambat. It was after obtaining permission from the Institutional Board of the hospital. Informed written1consent was obtained from every patient. Sample size of 60 patients was calculated with 80% power of test, 5% level of significance & taking expected percentage of 13% of gastric patients. All patients with both genders presenting with age 35 to 75 years and diagnosed with gastric cancer disease were included from the study. Patients with other disease like kidney failure liver dysfunction were excluded from the study. Data were entered in SPSS version 21.0. Age, were presented ad mean and standard deviation. Categorical data like gender, upper GI, lower GI, operated cases were presented as frequencies & percentage. Histopathological findings were presented as in diagram form.

RESULTS

In our study, total 63 patients enrolled with gastric surgery during COVID 19 were admitted in the hospital. There were 33(52.3%) male and 30(47.61%) female and the mean age of patients was 50.23±12.41 years. Out of 63, the tumor was upper GI diagnosed in 38 patients and the lower GI diagnosed in 25 patients, presented with COVID 19 most

common symptoms like fever, cough, tiredness, and less common symptoms pain, headache, diarrhoea and loss of taste and smell. In 38 upper GI tumors, 11 were located in esophagus, 15 were in stomach, 8 were in pancreas, 2 were in peri-ampula and 2 were duodenum, 7 unresectable operated in stomach and pancreas and 1 in peri-ampula. 4 unresectable feeding jujenostorny in stomach esophagus. 5 unresectable refers to oncologist for neoudjuvent chemotherapy in esophagus. 4 refer to also oncologist for chemotherapy in stomach and 1 in peri-ampula. Out of 63 cases, 30 cases operated successfully. 17 cases in upper GI and 13 cases in lower GI, Table 1. On day 30 of surgery, complications were also noted. 6 (9.5%) patients were wound infection, 2 (3.2%) was chest infection, 2 (3.2%) patients were expiring due to sepsis and the remaining patients was no complications after surgery, Table 2. Hematological findings were presented graph form.

Characteristics	Variables	Percentage %
Age		50.23±12.41
Gender	Male	33(52.3%)
	Female	30(47.61%)
Gastrointestinal Surgery	Lower GI	13(20.63%)
	Upper GI	38(60.31%)
Upper GI	Esophagus	11(28.94%)
	Stomach	15(39.47%)
	Pancreas	8(21.05%)
	Periampula	2(5.26%)
	Duodenum	2(5.26%)
Lower GI	Operated	13(52%)
	Referred to Oncologist	12(48%)
Surgery cases	Operated Successfully	30(47.69%)
	Non-operated	0

Table 1: Basic Information of the patients

Complications	Frequency
Wound Infection	6(9.5%)
Chest Infection	2(3.2%)
Patients expire due to sepsis	2(3.2%)
Total Complication	10(15.9%)

Table 2: 30 days' post-operative complication

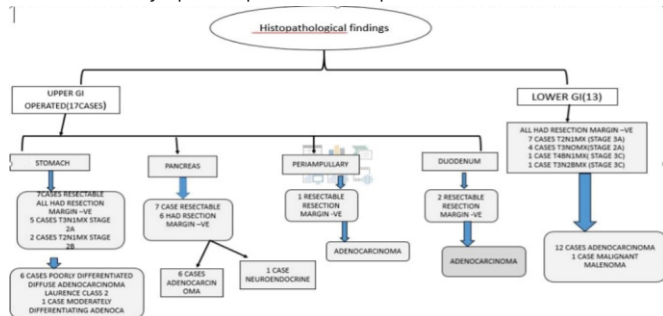


Figure 1: Histopathological Findings

DISCUSSION

In March of 2020, the World Health Organization classified

the COVID-19 virus, which is caused by the novel severe acute respiratory syndrome coronavirus 21 (SARS-CoV-2), as a pandemic [13]. While cancer is not an infectious disease, it is quite common and should not be disregarded while dealing with the COVID-19 public health emergency. Telemedicine and remote counseling have advanced significantly throughout the COVID-19 era. This has aided in the reduction of outpatient visits and needless physical interaction. Gambardella et al. shared their treatment experience with elderly cancer patients. They compiled a list of practices that might aid in the prevention of disease spread in patients [14]. Surgeons and nurses did not interact with patients after they were admitted to the hospital. Surgical operations would be undertaken if the patient's temperature was less than 37.3°C or if they no longer had additional pneumonia-related symptoms after three days in the hospital. As a result, there was a longer recuperation time between surgery and discharge. Surgery should be conducted in accordance with the principles of safety and efficiency during COVID-19 to reduce post-operative complications and expedite patient recovery [15-17]. In our study, out of 63 cases, 30 cases operated successfully. 17 cases in upper GI and 13 cases in lower GI. After 30 days' post-operative complications like, 6 patients were wound infection, 2 was chest infection, 1 patient was expiring due to sepsis and the remaining patients was no complications after surgery. Apostolou et al [18] & Fernando et al [19] findings during the lockdown, fewer patients were referred and hospitalized, and the length of stay was much less than it had been before. As compare to our study also only 1 patient in upper GI and 12 patients in lower GI were referred to oncologist for chemotherapy, 30 patients were operated and admitted during Pandemic with SOPs like facial mask, protective goggles, and alcoholic hygiene solution. In upper GI cases, involving stomach 5 cases were in T3N1MX stage 2A, 2 cases were in T2N1MX stage 2B and 5 cases respectable all had resection margin. Further 6 cases were with poorly differentiated diffuse adenocarcinoma. The rest including pancreas, Duodenum and periampula were shown in above figure. Results of our study are also in line with findings of Gupta et al [20]. In the event of a pandemic, the scarcity of resources, along with the risk of infection exposure and spread to patients, and the lack of qualified health-care staff, are frequently the driving forces for the establishment of health-care institutions. The future paradigm of dividing operations between circumstances that are time-sensitive and those that aren't might be beneficial in assessing whether operations, if delayed, might have a detrimental influence on patient significant outcomes.

CONCLUSION

It has been concluded that during COVID-19 pandemic, there is a need for clear guidelines in every surgical unit to ensure both patient and staff safety. There are very limited studies on the impact of COVID-19 on gastric cancer patients. This pandemic situation has effected the global economy, healthcare strategies and management system. A judicious approach must be adopted as surgical units look to re-open services as the pandemic evolves.

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