

Impact of COVID-19 on General Surgical Emergencies in Tertiary care Public Hospital in Malaysia

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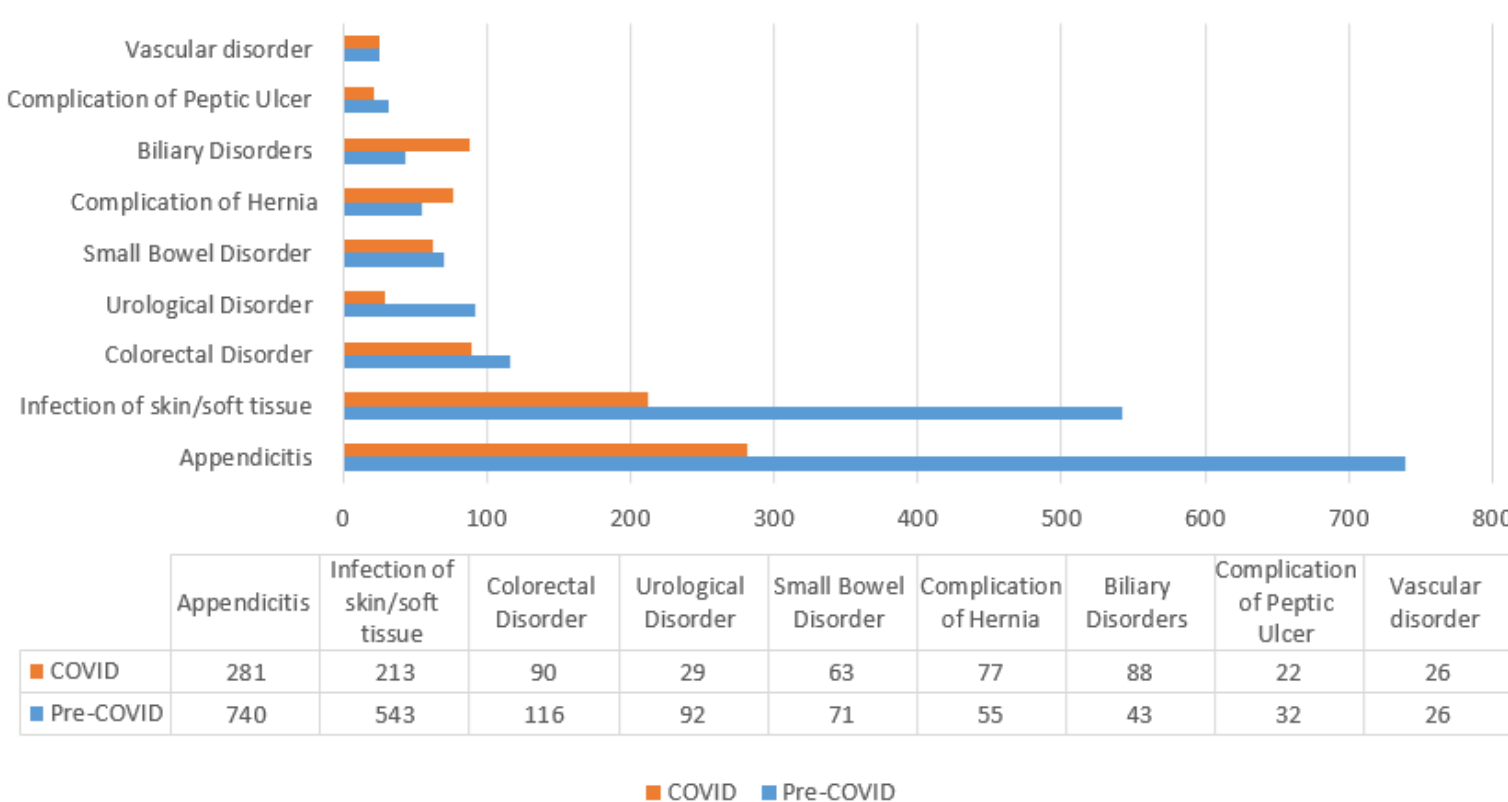
INTRODUCTION

The relentless spread of the COVID-19 disease exerted an unprecedented strain on hospital resources and manpower. Malaysia government took drastic steps to contain the spread of the disease. Emergency surgeries were managed under challenging conditions and elective surgeries were stop during the pandemic. This study aims to described the impact of a nationwide lockdown on the incidence, types, severity and outcomes of emergency general surgeries in a tertiary care hospital in Malaysia. This study also can be a reference for tertiary hospital in Malaysia to plan strategies and improved the efficiency of patient care in future pandemic.

MATERIALS & METHODS

This retrospective cohort study analysed the data of patients who underwent emergency general surgery during the pandemic period from 1st Jan 2021 to 31st December 2021 and compared with pre-pandemic period in 2017. Data on patient demographics, type of surgical procedures, postoperative mortality and utilization of critical care facilities was obtained from the Computerised Operating Theatre Documentation System of the hospital.

Emergency Surgery of Diagnostic Procedure



	Pre-COVID	COVID	
Duration of stays, \bar{X} (IQR)	6.54 (2-6)	7.71 (3-7)	< 0.01
Critical Care ICU/HDU admission, n (%)	141 (8.20)	119 (13.38)	< 0.01
30-day Mortality, n (%)	86 (5)	29 (3.26)	< 0.05

Results

- There was a 48.3% decrease in the EGS compared to the pre-pandemic period. Surgeries for biliary disorders increased by 7.4% and hernia complications increased by 5.46%.
- Only patients with small bowel disorders during the COVID period required longer stays (25.24 days) compared to pre-COVID period (16 days).
- The number of colorectal disorders requiring critical care increased during the COVID period with the variations of +43.5%.

Discussion

- Overall reduction of the procedures during the pandemic period can be multifactorial. General public avoided going to hospitals for fear of contracting the COVID infection. Another reason could be collaborative arrangement with the private sector to optimise the healthcare resources and facilities in the country.
- During the COVID period, delays in emergency surgery was unavoidable because of the stringent perioperative protocols. Delay in consultation could potentially result in more evolved acute diseases and worse postoperative prognosis.

Conclusions

The study demonstrates a significant overall reduction in the EGS procedures during the COVID-19 period. Biliary surgeries and complicated inguinal Hernia increased during the Pandemic. Surgeries of the small bowel required a longer hospital stay and those undergoing colorectal surgeries required more critical care support. The mortality rate is comparable to the pre-pandemic period.

References:

Tebala GD, Milani MS, Bignell M, Bond-Smith G, Lewis C, Cirocchi R, *et al.* Emergency surgery admissions and the COVID-19 pandemic: did the first wave really change our practice? Results of an ACOI/WSES international retrospective cohort audit on 6263 patients. *World J Emerg Surg* **17**, 8 (2022).