

Study the Impact of COVID 19 and Lockdown on Paediatric Surgical Service in a Tertiary Hospital

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Abstract

Original Research Article

The COVID-19 (SARS CoV. 2) Pandemic has brought substantial challenges to the healthcare sector. At present, there are over 141 million cases of COVID19 in the world of which over 80.4 million cases have recovered whilst Covid 19 has caused over 3.01 million deaths in the world. None of the surgical specialties has been spared of covid 19 influence. There has been a steep decline in operating elective procedures. As well as there are new protocols and guidelines for operating emergency cases. This article reviews the impact of COVID19 on the workload in the Department of Paediatric surgery in a tertiary care hospital.

Keywords: COVID19, Pediatric surgery, Health care.

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INTRODUCTION

COVID19 disease is caused by SARS-COV-2 i.e. (severe acute respiratory syndrome corona virus-2). The first noted case of covid19 was in Wuhan China [2] and from where it spread like wild fire over the world, 213 countries and territories have confirmed cases of COVID19. In India the first case of COVID19 was reported 30 January 2020 in Kerala [3], after which complete nationwide lockdown was imposed on 24th March 2020. As the cases were on increasing trend, lockdown was further imposed up to 31st May 2020. Since lockdown the Outpatient department, Admissions and number of elective and emergency surgeries had gone down significantly. As due to complete lockdown and restriction of movement intercity/district/ State and Nation and lack of public transport there was a significant decrease in patient inflow and operative work. Being a tertiary care center this hospital is catering to both COVID as well as non COVID patients and as a hospital protocol there was distribution of faculties and facilities in COVID and non COVID duties. We at Department of Paediatric surgery Lokmanya Tilak Municipal medical college observed the impact of COVID19 Pandemic and lockdown on the work in this department.

MATERIALS AND METHODS

Nationwide lockdown was imposed from end of March to May 2020. During Lockdown all non-essential services and shops were closed. Essential services such as Pharmaceuticals, Hospitals, Banks, Grocery shops were allowed to remain open. The private and commercial firms were closed and only work from home was allowed. All educational, Training and Research universities, colleges and institutions were shut down; online teaching was introduced in the teaching curriculum. All the places of worship such as Temples, Mosques, and Churches etc. were closed. There was suspension of all private and public transport with the exception of essential services. There was restriction on cultural Activities, political Gatherings, sports and entertainment such as Shopping malls, movie theater etc. social, Political and private gatherings were banned.

To prevent economic slowdown in the nation the unlock process was planned in phases from June to October 2020. In the unlock period there was gradual phase wise relaxation in the imposed restrictions. The inclusion criteria were to include all the patients visiting the OPD, casualty and all the routine and emergency operative cases. There were no exclusion criteria.

RESULTS

We observed the pattern of cases in Out Patient Department, Casualty, Indoor admissions, and operative procedures (elective and emergency). We observed the cases from September 2019 to September 2020.

The patients attending the casualty department were those who had acute/emergency and needed to visit a doctor urgently.

The results were tabulated in a graphical pattern as shown in the figure (figure1).

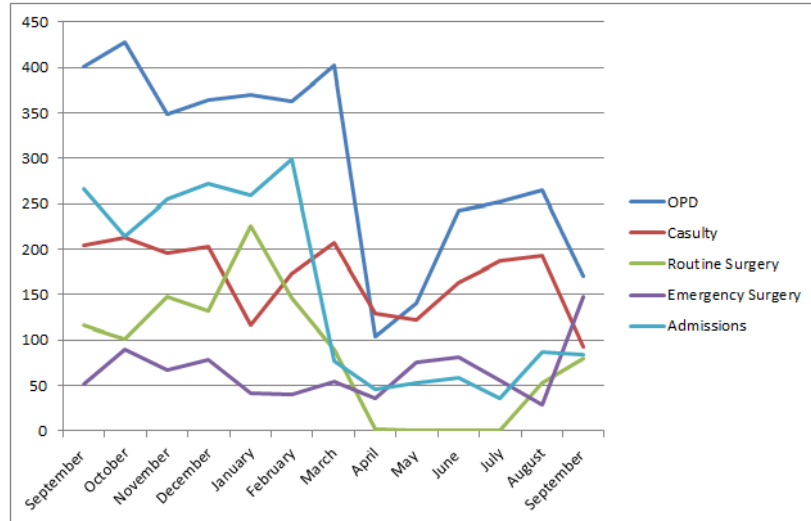


Fig-1

DISCUSSION

Lokmanya Tilak municipal medical college and general hospital is one of the oldest municipal hospitals in Mumbai. It has 1450 beds; it is the primary referral hospital and caters most of the trauma and disaster cases of Mumbai. It is situated in close proximity to Dharavi (Asia's largest slum) and having a population of approximately 1 million and density of 277136/km².

The first confirmed case of covid19 was identified on 12th of March 2020 in Mumbai [4, 5], while the first case of covid19 in Dharavi (Asia's largest slum) was detected on 1st of April 2020 [6]. To be prepared for the covid19 pandemic the routine admissions were curtailed only emergency services were offered. In anticipation to the pandemic dedicated covid wards were set up and 650 beds were arranged for covid19 patients, in intensive care units such as Medical ICU, Intensive respiratory Care units special arrangements were made for covid patients. Many wards were converted to make shift Intensive care units. A dedicated Covid OT was setup for emergency surgeries which were infected with SARS-COV 2. To free up beds for the covid19 patients only emergency cases were catered. New Protocols were set to treat the Covid19 Patients. Health care workers were provided with the Personal Protective equipment kits, face shields and Face masks. Due to lockdown and restriction in the movement the Out Patient department attendance of patients went down from the month of March till month of May, phase wise relaxation in the lockdown rules was initiated by the government and gradually from the month of June we saw increase in

the OPD. Patient attendance. As majority of children are asymptomatic carriers of Covid19 [7]. All the patients were tested before admission.

During the pandemic all Covid positive patients were operated in dedicated operation theatre for covid patients. We operated Covid positive perforated appendix and recurrent appendicitis in these dedicated theatres. There were three patients who were covid negative to start with but later developed fever and tested positive for the virus, they were shifted to pediatric Covid ward and were started on osaltamivir, azithromycin and multivitamins until they were covid negative. As government protocols changed asymptomatic and mild clinically symptomatic Covid patients were home isolated.

CONCLUSION

As the covid19 pandemic began to escalate in India the health care sector was under immense pressure to keep up with the pace of infectivity, morbidity and mortality. There was burden over the doctors to meet increasing demand of catering the huge number of cases and to cope up with it many specialties other than internal medicine, respiratory medicine had to contribute. This saw surgery taking the back seat. Nationwide lockdown helped in containing the steep rise of cases but had severe impact on surgical cases as semi emergency cases like uretero-pelvic junction obstruction started becoming emergency surgery due to delay and deteriorating kidney function. As the cases peaked in the month of April, May and June it was not worth the risk to post the patients for surgery but as newer effective treatment protocols and medication

such as Remdesvir and Tocilizumab saw increased recovery rate. In the month of September we saw increase in emergency cases which compelled us to start routine surgical work.

In our protocol every patient before surgery was tested for Covid and kept in isolation ward before admission in our normal ward and if patient is covid positive then was shifted to covid ward and was managed further. Emergency cases were shifted to covid Operation theatre and later covid Intensive care units or ward respectively.

Covid is here to stay and we should adapt quickly to it and manage to find ways to get our surgical work back on track. In this covid era which has brought many disruptions to everyone's life and changed contour of working pattern we should start finding apt ways to combat this famine. Covid 19 Vaccination drive began in the month of January it has significantly helped in decreasing mortality of high risk patients and to some extent in spread of disease. Achieving Herd immunity through vaccination is the main goal to prevent spread of the virus. Most importantly preventing our kids from Covid 19 is the top most priority, following protocol such as maintaining social distance, wearing a mask, washing hands frequently, Avoid touching mouth nose and eyes, having good healthy diet and immunity boosting medicines such as multivitamins zinc and vitamin c. Lastly and importantly Covid should not be a taboo for surgical work, as many departments are still not fully

functional we should rise to the occasion and commence a novel avenue in this covid era.

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