

Short
Communication

Impact of COVID-19 on Elective Surgical Lists in Otorhinolaryngology: An Overview

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^{1,5,6} Analysis/Interpretation/Discussion

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Abstract

Objective: To study how the COVID-19 is affecting the treatment and management of other ailments. Try to find a strategy to resume elective OR lists.

Introduction: We overviewed the effect of COVID-19 on the elective surgical lists of otorhinolaryngology in the ENT Department of Holy Family Hospital, Rawalpindi.

Materials and Methods: The data from Jan 2020 to July 2020 was collected. It is a descriptive study analyzing the data, 3 months before and 3 months after the imposition of lockdown in the whole of Pakistan due to a surge in COVID-19 cases. The data was collected from the operation dating register of OPD and elective operative lists of ENT OT. Data were analyzed by Microsoft excel spreadsheet version 7.

Results: There was an overall 92% decrease in the elective surgical procedures done in the ENT dept. of Holy family Hospital during the COVID-19 lockdown period. The procedures done in the COVID lockdown period were mostly emergency procedures and lifesaving procedures.

Conclusion: COVID-19 has badly impacted the elective surgical procedures and in turn the health of the patients presenting to ENT OPD with various diseases which were treated surgically before COVID lockdown. To prevent this from happening again during the 2nd wave of COVID-19, we could opt for multiple precautionary measures to avoid the spread of infection and continue the provision of our surgical services to the patients.

Keywords: COVID-19, SARS COV-2, Elective surgical lists, ENT Head & Neck Surgery, Holy Family Hospital.

Introduction

The outbreak of the novel coronavirus SARS-CoV-2 (COVID-19) was epi-centered in the Hubei province of China. On 30th January 2020, it was declared as a global health emergency by the WHO Emergency Committee.¹

The Coronaviruses are Positive single-stranded, enveloped large RNA viruses that infect a wide range of animals and humans. First described by Tyrell and Bynoe in 1966.² Probably SARS-CoV-2 made its animal to human transmission at the Huanan seafood market, but the exact route of transmission still needs to be identified.

As the cases started appearing, different countries implemented different measures to stop the spread of contagion. Social distancing, stay-at-home, work from home, smart lockdown, or complete lockdown with police patrolling the streets were different types of strategies employed by different countries and different regions within a country. Identifying and screening of close contacts of confirmed cases was also carried out in some countries.^{4,5}

In Pakistan, we started from complete lockdown, and then gradually the lockdown was uplifted till we progressed to "SMART LOCKDOWN". In Hospitals, the elective operation theatre lists are still at a stop. OPDs are partially functional.

We overviewed the effect of COVID-19 on the elective surgical lists and management of non-communicable diseases and tried to devise some strategies to cope with these problems.

Materials and Methods

Objective: To study how the COVID-19 is affecting the treatment and management of other ailments. Try to find a strategy to resume elective OR lists.

Setting and Participants: It is a descriptive study done in the ENT Department of Holy Family Hospital, Rawalpindi, the data was collected from the dating register of patients and elective OT lists. The data, from Jan 2020 to June 2020, was analyzed and data of 3 months before the lockdown was compared with 3 months after lockdown due to COVID-19.

Statistical Analysis: Done using Microsoft excel spreadsheet version 7.

Ethical Approval: Research was approved by IRF.

Results

From Jan 2020 to March 2020, a total of 1500 surgeries were done in the elective operation theatre of ENT, and from March 2020 to July 2020, the number of surgeries done in ENT operation theatre reduced to 120. There was an overall 92% decrease in the elective surgical procedures done in the ENT Department of Holy Family Hospital, Rawalpindi during the COVID-19 lockdown period.

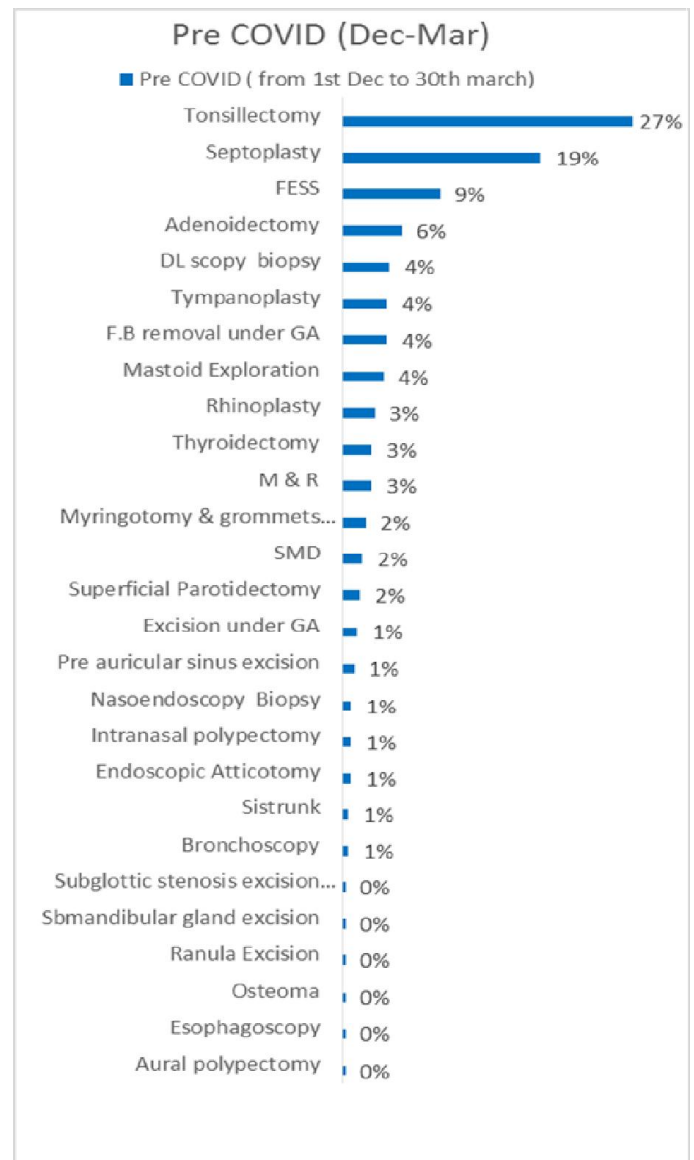


Figure 1: Pre COVID (Dec-Mar 2020)

From December 2019 to March 2020, Tonsillectomy reported up to 405 (27%), which was the highest ratio, and Septoplasty was the second with 285 (19%) during

the period of Pre COVID. FESS was on the third repeated surgeries reported in the period of Pre COVID. While on the other hand, if we see the surgeries During COVID (up to 16th July 2020), F.B removal under GA on the top with 30 (25%) of the total. Esophagoscopy 25 (21%) and DL-scopy & biopsy 17 (14%) were on second and third most repeated surgeries during the period of COVID Lockdown. The procedures done in the COVID lockdown period were mostly emergency procedures. The data can also be shown in the chart below.

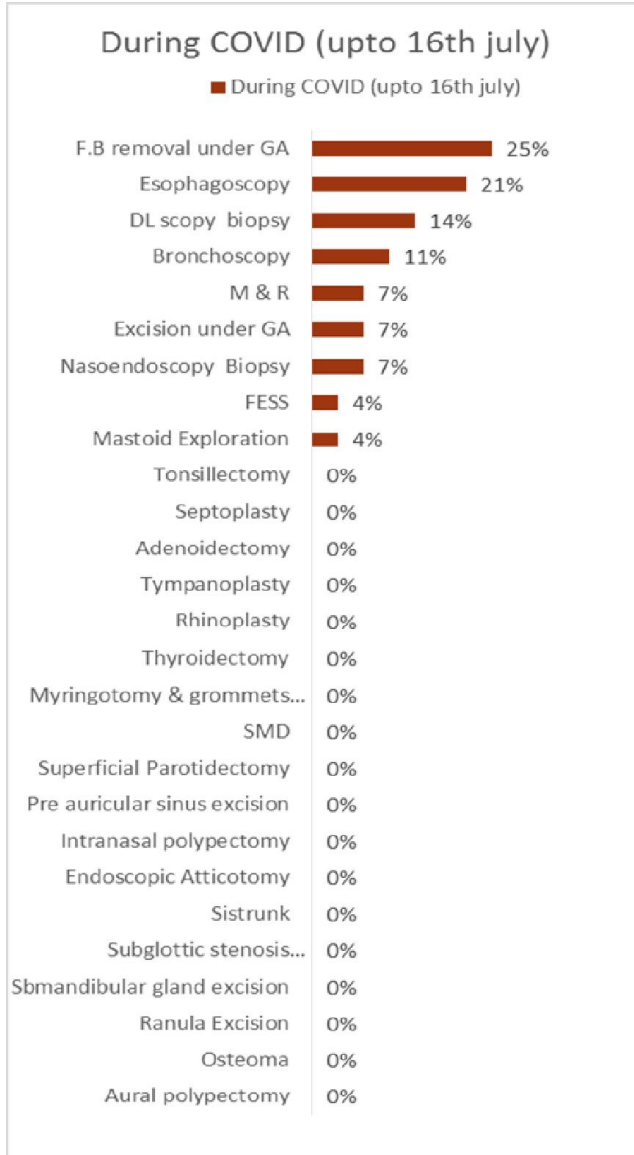


Figure 2: During COVID (Up to 16th July 2020)

Discussion

COVID-19 has badly impacted the provision of surgical services to patients needing elective surgical procedures for their disease management as shown by the results of our research. Transmission of respiratory pathogens can be reduced through exposure control measures which include administrative controls, engineering, and PPEs.

Administrative control measures include screening and isolation of patients fulfilling the suspect criteria, increase time between surgeries to enhance disinfection and decontamination process, staff segregation, workshops to train staff about workflow and communication, and develop a plan to care for potential COVID-19 patients.

Engineering control measures that can be adopted to reduce the spread of infection include the use of HEPA filters at the patient end of the breathing circuit and also between the expiratory limb of the circuit and anesthesia machine, use of only one door while the patient is inside the operation theatre and applying a surgical mask on the patient.

Personal protective equipment should be used by all the personnel involved in the care of a patient in the OT which includes an anaesthetist, surgeon, staff nurses, OT assistants, and technicians. These may include N95 masks, goggles, visors, and protective gowns made of non-woven material.

Operation theatre should be disinfected after every surgical procedure with 0.1% Sodium hypochlorite solution for 1 minute, which should be followed by hydrogen peroxide vaporization or UV-C irradiation.¹¹ During induction of anesthesia, rapid sequence induction should be preferred to reduce the risk of aerosolization of the virus. If pre-oxygenation is needed, it should be done by a well-fitting face mask, the patient should be fully sedated and paralyzed before intubation and it should be ensured that full expiration has occurred before lifting the face mask of the patient.

The patient should wear a surgical mask after extubation, oxygenation should be done by nasal prongs beneath the face mask, venturi masks should be avoided. The patient should recover fully in the operation theatre.

The operation theatre with a negative airflow system is ideal for avoiding the spread of infection beyond the OT 11, but our operation theatres do not have this system, so we can use high frequency (25/hr.) of air changes to reduce the viral load.

Routine postoperative visits should be done on phone calls if possible. Post-op patients should visit the hospital only if necessary.

Conclusion

COVID-19 has badly influenced the elective surgical lists of dept. of ENT Head and neck surgery Holy family hospital Rawalpindi as shown in the results above. Now as we are heading towards the 2nd wave, we should adopt the measures listed above to lessen this effect of COVID-19 on our future work.

The preparation for the 2nd wave starts by reviewing the previous one. Preparation between the waves has to be done on personal, departmental, and hospital levels. Accurate data collection during the next wave has to be planned at this stage.

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