



**CHANGE IN DIAGNOSTIC PATTERN OF PATIENTS ADMITTED IN A TERTIARY CARE HOSPITAL DURING THE COVID-19 PANDEMIC**

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**ABSTRACT**

COVID-19 has emerged as a medical threat to mankind, with a serious disruption of lifestyle in 2020. The corona virus disease (COVID-2019) is caused by a novel corona virus (2019- SARS CoV-2). It has spread rapidly throughout the whole world causing huge morbidity and mortality. Due to this, the Director General of World Health Organization (WHO) declared this outbreak a Public Health Emergency of International Concern on January 30, 2020. The 1st case of COVID-19 in India was reported on 30 January 2020. On the 11th of March, WHO declared COVID-19 “a pandemic” as by then, about 114 countries were affected.

This paper evaluates the change in the diagnostic spectrum of the patients who were admitted in a tertiary care hospital in the year 2020, during the pandemic. The skewed diagnostic pattern may have occurred due to all the regulations, restrictions and COVID risk perception varying according to the patients.

**KEYWORDS :** COVID-19, diagnostic pattern, pandemic

**INTRODUCTION**

Pneumonia cases caused by a newly identified coronavirus in December, 2019. The World Health Organization (WHO) named the disease as the coronavirus disease 2019 (COVID– 19) on February 2020.

COVID-19 has emerged as a medical threat to mankind, with a serious disruption of lifestyle in 2020. This has not only changed the way we live and work but has also changed the pattern of hospital admissions and medical care. This paper aims to see if there was significant change in the pattern of inpatient admissions. Data from the year 2020 was collected (from 1<sup>st</sup> March 2020 to 31<sup>st</sup> December 2020) and evaluated and then compared to data from the previous year.

During the pandemic, it had been recommended to limit the outpatient and inpatient services and to develop mechanisms to filter elective applications until the outbreak is controlled. This paper evaluates the change in the diagnostic spectrum of the patients who were admitted in a tertiary care hospital in the year 2020, during the pandemic. The skewed diagnostic pattern may have occurred due to all the regulations, restrictions and COVID risk perception varying according to the patient. There might have been some underlying motivational reasons pushing the patient to seek medical advice in such a period. Many factors, such as affecting the quality of life, risk perception, increased stress burden may cause a change in the diagnostic distribution of the patients admissions.

The research aims to find the indirect impact of the COVID-19 pandemic on the health of the population and the health-care system. We aimed to investigate the indirect effect of the COVID-19 pandemic on general practice health-care usage, and the subsequent diagnoses of common medical conditions. The present study was conducted with an aim to find out if the diagnostic pattern was skewed during the COVID-19 pandemic.

**MATERIALS AND METHODS**

This is a retrospective observational study performed at a tertiary care hospital in Pune, Maharashtra.

We collected data from Smt. Kashibai Navale Medical College and General Hospital, Narhe, Pune, from 1<sup>st</sup> March 2020 to 31<sup>st</sup> December 2020 signifying the time period during the pandemic. This was compared to data from 1<sup>st</sup> March 2019 to 31<sup>st</sup> December 2019 which was the pre-pandemic period.

The data was collected from the records department and was anonymized. The inpatient diagnostic pattern in the year 2019, before COVID-19, was compared to the inpatient diagnostic pattern in the year 2020, during the COVID-19 pandemic.

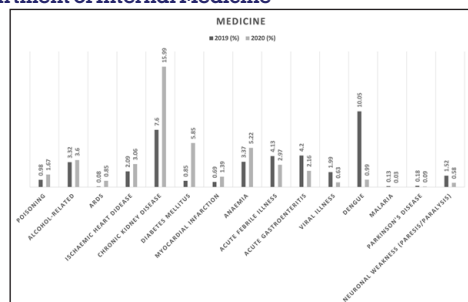
All the data was collected on Microsoft excel spreadsheet for analysis. The data was analysed based on the common medical diagnosis from each department. The change in the common medical diagnosis was compared for the two years in terms of percentages to see the change in morbidity pattern.

The analysed data is presented in the form of bar graphs for better understanding.

**RESULTS**

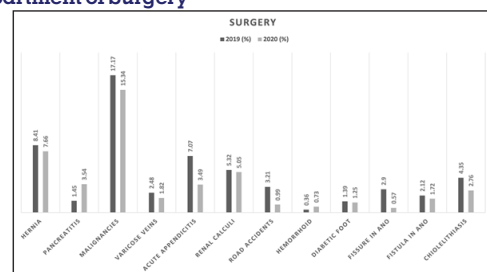
Some changes were observed in the percentages of the medical conditions diagnosed in both the time periods. The graphs show the comparison between the common medical diagnosis during the two time periods from each department.

**Department of Internal Medicine**

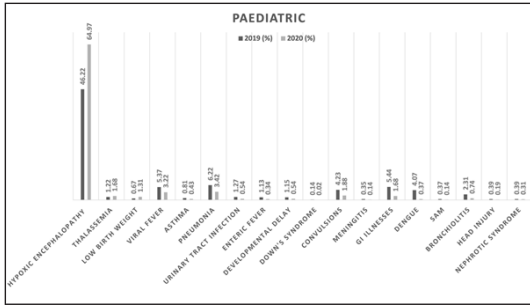


**ARDS: Acute Respiratory Distress Syndrome**

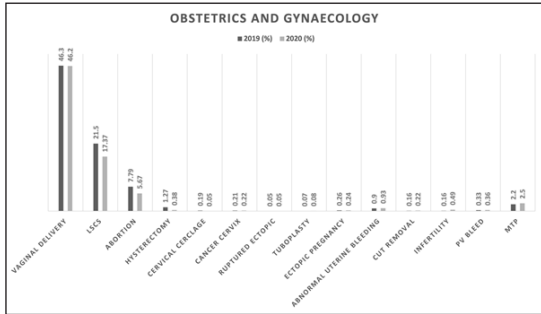
**Department of Surgery**



**Department of Paediatrics**

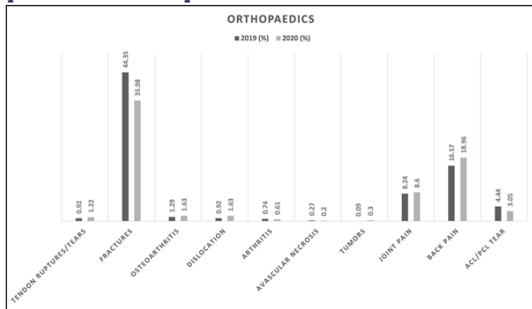


**SAM: Severe Acute Malnutrition**  
**Department of Obstetrics and Gynaecology**

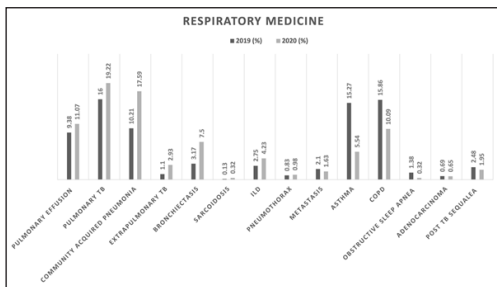


**LSCS: Lower Section Caesarean Section**  
**CUT: Copper T**  
**MTP: Medical Termination of Pregnancy**

**Department of Orthopaedics**

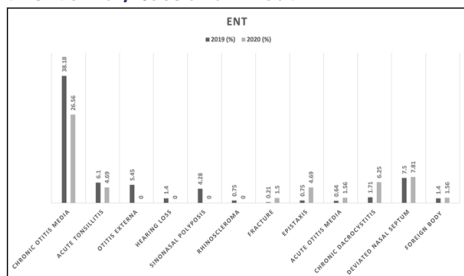


**Department of Respiratory Medicine**

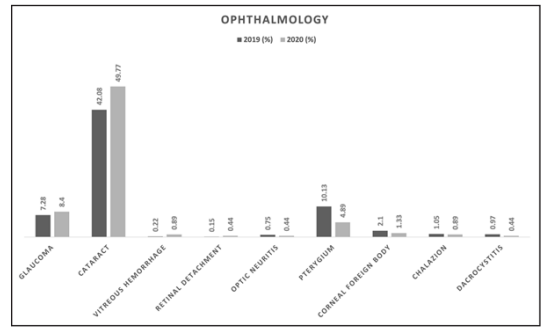


**TB: Tuberculosis**  
**ILD: Interstitial Lung Disease**  
**CPD: Chronic Obstructive Pulmonary Disease**

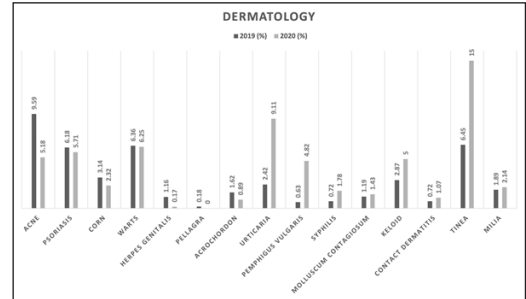
**Department of Ear, Nose and Throat**



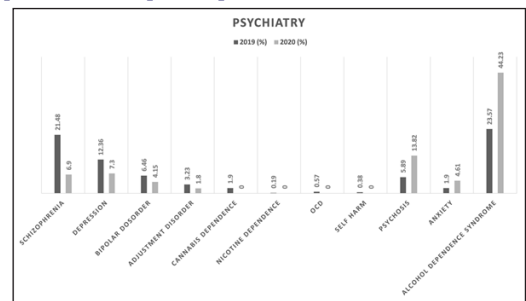
**Department of Ophthalmology**



**Department of Dermatology**



**Department of Psychiatry**



**ODD: Obsessive Compulsive Disorder**

**DISCUSSION**

It was found that the frequencies of some diseases did not change by an huge proportion. The absence of frequency increase in diseases can be explained by one or more of the following reasons: The risk perception of patients in this group is similar, the treatment plan for chronic diseases is pre-drawn, and some diseases do not cause severe deterioration in their quality of life.

The frequency decline in diseases such as neuronal diseases, febrile illnesses, pterygium, chalazion, dacryocystitis, acne, alopecia, varicose veins, etc suggested that these diseases may not affect the quality of life too much or that such diseases can be ignored during the outbreak.

Major negative impacts are not inevitable as a consequence of a decrease in primary care utilisation. For minor illnesses, people might seek alternative solutions, or the problem might be resolved without medical intervention. However, this is not true for all the conditions assessed in this study.

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