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ORIGINAL ARTICLE

Analysis of COVID-19's Effects on the Incidence of Chronic Respiratory Symptoms in KPK

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ABSTRACT

Introduction: Pakistan has a high prevalence of chronic respiratory disorders, including bronchial asthma and chronic obstructive pulmonary disease (COPD).

Objectives: Finding the effect of COVID-19 on chronic respiratory disease in Pakistan is the study's key goal.

Material and methods: From February 2021 to December 2021, this cross-sectional research was carried department of pulmonology at HMC hospital Peshawar A specified To differentiate between the COVID-19 era and the period preceding it, a set of criteria in the form of a questionnaire was applied.

Results: A total of 157 participants contributed to the data set. Patients who tested positive for COVID 19 were additionally asked about their experiences with respiratory co morbidities. More than a third of respondents mentioned COPD as a co morbidity; many also mentioned bronchial asthma, ILD, and tuberculosis (TB).

Conclusion: COVID-19 would certainly increase chronic respiratory disorders in Khyber Pakhtunkhwa. The pandemic might increase respiratory disorders, strain health systems, and cost people impacted. Increase public health awareness and ensure chronic respiratory illness patients get proper treatment and resources to address these issues. To decrease the pandemic's effect on Khyber Pakhtunkhwa's population, early respiratory disease identification and treatment techniques are needed.

Keywords: Analysis , Respiration, COVID-19 Patients, COPD

INTRODUCTION

The first reported case of the respiratory virus COVID-19 for the year was documented in Wuhan, China, in January More than a thousand deaths are being blamed on the COVID-19 virus in fifteen different countries. Countries including the US, Spain, Italy, China, Iran, the NL, CA, SW, TUR, FR, and SW are included [1]. Each country's healthcare infrastructure has been compromised by this pandemic's spread, increasing the likelihood of illness and death [2]. In March of 2020, after it had already reached almost every country except China, the WHO declared [COVID-19] a worldwide pandemic. Statements made by the WHO [3] There have been about 2,594,835 verified [COVID-19]cases and 181,170 deaths as of April 22. The COVID-19 virus might have a higher impact on less developed countries [4], but it still has a negative effect on the developed and prosperous world. Chronic respiratory problems were identified as a risk factor for [COVID-19] disease severity and poor outcomes by categorization [5]. One study found 14.5% of people with asthma also had another chronic pulmonary illness ([COVID-19]), whereas the range for all other chronic lung disorders was 1.5% to 17.7%. Intriguingly, some research has shown a lower prevalence of respiratory comorbidities than other research has demonstrated. Given that the results of spirometric examinations in the general population are below average, this phenomena may be true [7]. The patient's history includes a trip to Iran, and on February 26th, the first incidence of [COVID-19] in Pakistan was reported by the city of Karachi. Over a period of six weeks, Pakistan conducted up to [31,000] nuclear tests each day despite lockdowns, the suspension of public transportation, and restrictions on international air and maritime commerce [8]. Due to the shutdown and poor follow-up of SOPs in the country's healthcare systems, there has been an influx of cases that is rapidly expanding [9]. Prime Minister Imran Khan of Pakistan instituted "Smart lock-down" to restrict needless movement in the country's major cities and towns. Pakistan has also established a National Command Operations Centre (NCOC) to combat the spread of COVID-19 [10]. This centre brings together the nation's armed forces and administration in an effort to mass-produce and distribute cheap masks throughout the country. The study's primary goal is to learn whether or not [COVID-19] contributes to chronic respiratory illnesses in Pakistan[11].

MATERIAL AND METHODS

From February 2021 to December 2021, the department of pulmonology at the HMC hospital in Peshawar carried out this cross-sectional study. There was a formal survey administered both before and after the COVID-19 pandemic. was made using predetermined definitions. A total of [24] questions were asked on the prevalence, management, exacerbations, hospitalisations, and outcomes of asthma, COPD, and ILD. In this study, 14 of the questions were linked to asthma. Before and after COVID-19, there were correlations between the incidence of asthma in outpatient settings, asthma treatment, admissions for severe asthma, and hospitalisation outcomes for severe asthma. Additionally, the questionnaire During COVID-19, questions about nebulization, asthma-related data, and ICS use were raised. Throughout the poll, the number of responses fluctuated from issue to topic.

Statistical analysis: SPSS version 22 was used to gather and analyse the data. The mean and standard deviation were used to represent all values.

RESULTS

There were 157 respondents that provided the data. Participants were also questioned about any respiratory comorbidities they have seen in COVID-19 diagnoses. A considerable portion of responders also had TB, bronchial asthma, and ILD, and more than one-third of them had COPD. As a result, the poll does not fairly represent the whole [COVID-19]treatment community. The data is limited, but it seems that [COVID-19]patients have a significant number of respiratory comorbidities.

Table 1: experts who treated COVID-19 patients with additional lung-related conditions

[Disease entity]	the proportion of pulmonologists who reported having respiratory comorbidities (%)
[Bronchial asthma]	23/157 (19%)
[COPD]	38/157 (38%)
[ILD]	11/157 (12%)
[Tuberculosis]	15/157 (17%)

Table 2: Effects of COVID-19 outbreak on COPD flare-ups and results

The total number of patients that visited the emergency department due to acute COPD flare-ups (non-COVID)				
	[Before COVID-19]	[During COVID-19]	[χ^2]	P-value
[None]	10 (11)	28 (31)	55.088	[<0.0001 Significant]
[01-5]	43 (45)	50 (55)		
[06-10]	20 (21)	10 (11)		
[>10]	25 (27)	04 (05)		

COPD is the main cause of chronic obstructive pulmonary disease in Pakistan. The two different forms of COPD exacerbations that happened before to COVID-19 and subsequent to COVID-19 will be examined in this research.

DISCUSSION

The most current strain to develop, COVID-19, is wreaking havoc and perhaps endangering lives in many regions of the globe. Our investigation indicates that this is the first survey to look at Pakistani citizens' opinions on the COVID-19. By using the convenience and snowball sampling methodologies, this research raised the threshold significantly [12]. The majority of questions pertaining to COVID-19 were properly answered by 65% of the participants, according to the study's findings. Additionally, they had the highest calibre attitudes and behaviours concerning COVID-19 [13].The majority of respondents had positive sentiments concerning COVID-19; more than 71% thought it would be well controlled (75%), and 78% thought Pakistan will be able to defeat this terrible diseases**[**14] . The participants said that once COVID-19 landed in Pakistan, the authorities took exceptional precautions. This positive attitude could be ascribed to it [15]. The government first stopped all aviation operations and proclaimed an emergency in much of the nation. Even more alarming was the fact that the shutdown forced the closure of all educational institutions [16].

CONCLUSION

It is determined that this lockout was successful since it was well-executed and because face masks were often worn outside the facility. As a consequence, fewer individuals with acute, severe asthma were hospitalised to hospitals and fewer individuals visited an asthma outpatient clinic. ILDs and COPD both followed the same trend. COVID-19 had no effect on asthmatic exacerbations, although it did on COPD and ILD exacerbations. For whatever reason, Indian pulmonologists kept up the same level of steroid administration to asthmatic patients throughout the epidemic, as was the practise across the globe.

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