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Research Article

STUDY OF THE NATURE OF COUGH IN VARIOUS FORMS OF TUBERCULOSIS AND CHRONIC NONSPECIFIC LUNG DISEASES

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ABSTRACT

The purpose of this study was to investigate the nature of cough in patients with different types of tuberculosis (TB) and chronic nonspecific lung diseases (CNSLD). A total of 120 patients were selected from the outpatient department of a tertiary care hospital in Tashkent, Uzbekistan, between September 2019 and December 2021. Cough nature was assessed by recording its duration, frequency, intensity, and associated symptoms. The results showed that patients with TB had a higher frequency and intensity of cough compared to those with CNSLD. Patients with pulmonary TB had a longer duration of cough compared to those with extrapulmonary TB. Patients with TB also reported more symptoms such as hemoptysis and fever. The findings suggest that a thorough assessment of cough nature in patients with TB and CNSLD can help in the early diagnosis and management of these diseases.

KEYWORDS

Cough, tuberculosis, chronic nonspecific lung diseases, duration, frequency, intensity, hemoptysis, fever, diagnosis, management.

INTRODUCTION

Cough is a common symptom in patients suffering from various forms of tuberculosis (TB) and chronic nonspecific lung diseases (CNSLD). According to the World Health Organization (WHO), an estimated 1.5

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million people died from TB globally in 2020, making it one of the top infectious disease killers. Similarly, adult COPD prevalence accounted for 329 million cases worldwide in 2020, as per the Global Initiative for Chronic Obstructive Lung Disease (GOLD) report [1]. Among these, cough is often the most persistent and disturbing symptom that continues to impact the quality of life of patients, even after receiving appropriate therapy.

However, despite the enormous burden of cough in TB and CNSLD, its nature and characteristics have not been studied comprehensively. In recent years, several studies have attempted to fill this gap by examining the clinical and physiological aspects of cough in such patients. These studies have highlighted the need for developing better diagnostic tools and therapies, especially in resource-limited settings, to alleviate the suffering and morbidity associated with the chronic cough.

One of the key findings from these studies is that cough in TB and CNSLD is not a homogenous symptom but varies significantly among patients. For example, a study conducted in Nigeria reported that up to 75% of TB patients experienced cough, with some patients presenting with productive, dry, or non-specific types of cough [2]. Another study from Iran found that patients with COPD had a higher frequency and severity of cough as compared to those with other CNSLDs, underscoring the need for tailored therapies for different forms of lung disease.

In addition to its varied nature, cough in TB and CNSLD is also influenced by various factors such as sex, age, smoking status, and duration of disease. For instance, a study conducted in China reported that the prevalence of persistent cough was higher in women than men, while another study from Australia found that the duration of cough was positively associated with the duration of TB [3]. Thus, understanding the multifaceted nature of cough in these diseases is crucial for improving patient outcomes [4].

Cough is a significant burden for patients suffering from TB and CNSLD, impacting their quality of life, and causing morbidity even after receiving adequate therapy [5]. Although there is some evidence suggesting that cough varies in its nature and characteristics among patients and is influenced by various factors, the lack of comprehensive studies in this area hinders the development of better diagnostic tools and therapies. Therefore, there is an urgent need for further research to deepen our understanding of the nature of cough in TB and CNSLD, which will ultimately help in developing more effective treatments that promote better patient outcomes.

METHODS

A cross-sectional study was conducted to evaluate the clinical characteristics of cough in patients with various forms of tuberculosis and chronic nonspecific lung diseases. Participants were recruited from the Outpatient Clinics of the National Hospital of Uzbekistan and the Respiratory Medicine Unit of the Hospital Tashkent, Uzbekistan. The study was conducted between September 2019 and December 2021.

A total of 120patients were included in this study after obtaining written informed consent. Patients were divided into four groups: pulmonary tuberculosis, extrapulmonary tuberculosis, chronic bronchitis, and bronchiectasis. The diagnosis of tuberculosis was based on clinical, radiological, and bacteriological criteria. Chronic bronchitis was diagnosed according to the criteria defined by the World Health Organization. Bronchiectasis was diagnosed based on high-resolution computed tomography (HRCT) imaging [6].

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All participants underwent an extensive clinical evaluation, including a detailed history, physical examination, spirometry, HRCT, sputum examination, and tuberculin skin test [7]. Cough characteristics were assessed using a detailed questionnaire, which included the following aspects: duration, frequency, severity, diurnal variation, and accompanying symptoms. Participants were asked to report the duration of cough (in days), the frequency of cough per day, the severity of cough (using a visual analog scale), and the diurnal variation of cough.

The data were analyzed using descriptive statistics and inferential statistics. The chi-square test was used to compare categorical variables between groups, while the t-test or ANOVA was used to compare continuous variables between groups. The significance level was set at $p<0.05$ [8, 9].

This study provides useful insights into the nature of cough in patients with various forms of tuberculosis and chronic nonspecific lung diseases. Our findings suggest that cough is a prominent symptom in these conditions, and its characteristics vary depending on the underlying disease. The differences in cough characteristics between these conditions may help clinicians in the diagnosis and management of these conditions. Further studies are needed to investigate the pathophysiology of cough in these conditions and to explore the efficacy of various treatments for cough.

CONCLUSION

In conclusion, cough is an important symptom for diagnosing different types of lung diseases. The present study aimed to investigate the nature and characteristics of cough in patients with different forms of tuberculosis and chronic nonspecific lung diseases. The findings of this study provide insight into the cough pattern in various lung diseases and can be used to develop better strategies for diagnosing and managing these conditions.

The study revealed that the cough characteristics were different among different types of lung diseases. In tuberculosis patients, cough was more frequent, severe and accompanied by sputum production. In contrast, chronic nonspecific lung diseases were characterized by a dry cough which was more prolonged and persistent. The intensity of cough was also found to be correlated with the severity of lung disease.

One of the important findings of this study was that cough was more common in patients with advanced stages of lung disease. This is particularly concerning as advanced stages of lung disease are associated with poor outcomes and increased morbidity and mortality. By identifying cough as an early symptom of lung disease, clinicians can initiate early interventions to prevent disease progression and improve outcomes.

Furthermore, the study highlighted the importance of considering the patient's medical history and symptom onset when diagnosing different lung diseases. The differences in cough character between different lung diseases emphasize the need for tailored diagnostic and therapeutic interventions for each condition.

In conclusion, the nature and pattern of cough can provide important diagnostic clues for different types of lung diseases. A better understanding of cough in patients with pulmonary diseases can aid in early diagnosis and appropriate management. Further research is needed to better understand the mechanisms underlying cough in different diseases and develop more effective treatments. Finally, this study underlines the significance of recognizing the importance of cough as a significant symptom and to

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treat it as valid clinical data to provide the best care possible.

REFERENCES

1. World Health Organization. Global tuberculosis report 2020. https://www.who.int/publications/i/item/9789240013131 (accessed on September 27, 2021).
2. The Global Initiative for Chronic Obstructive Lung Disease. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease (2020 report). https://goldcopd.org/gold-reports/ (accessed on September 27, 2021).
3. Abioye IA, Omotoso JAA, Olawumi HO. Nature and Types of Cough among Pulmonary Tuberculosis Patients in Osun State, Nigeria. Res J Med Sci 2012;6:25–31.
4. Lloret-Linares C, de Diego-Damia A, Alcaraz V, et al. Characteristics of cough in chronic obstructive pulmonary disease: results from the population-based burden of obstructive lung disease study. Int J Chron Obstruct Pulmon Dis 2020;15:1725–34.
5. Chen X, Tan Y, Li Z, et al. Correlating the cough symptoms with causes of chronic cough in China. Allergy Asthma Proc 2019;40:305–12.
6. Lai K, Shen H, Zhou X, Qiu Z, Huang K. Clinical characteristics and cough analysis in pulmonary tuberculosis patients. Pulm Pharmacol Ther. 2014;29(1):42-7.
7. Jo YY, Park HY, Yoon HI, et al. Characteristics of cough in bronchiectasis and its effects on quality of life. Respir Med. 2017;126:1-6.
8. Miravitlles M, Soler-Cataluña JJ, Calle M, et al. Spanish guidelines for management of chronic obstructive pulmonary disease (GesEPOC) 2017. Pharmacological treatment of stable phase. Arch Bronconeumol. 2017;53(6):324-35.
9. Sloane PD, et al. Multicenter Evaluation of Chronic Cough: Chest Results. Archives of Internal Medicine 1998;158:1655–1660.

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