

Bronchiectasis in Common Variable Immunodeficiency (CVID) Patients

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Abstract : Introduction: Bronchiectasis, a chronic respiratory ailment, has grown progressively widespread globally. Common Variable Immunodeficiency (CVID) has been recognized as a notable contributing factor for bronchiectasis. In order to effectively manage this condition, a thorough and focused strategy is necessary. Material and Methods: A systematic literature search was conducted in Web of Science, PubMed, and EMBASE from January 2000 to December 2023 using established keywords. In addition, we discovered randomized controlled trials (RCTs) by searching the Cochrane Airways Group Register of trials and online trials registries. Two reviewers autonomously retrieved and recorded data from the papers that were included, and evaluated the potential for bias in each study. Results: The majority of research have shown that the prevalence of bronchiectasis in individuals with CVID is 24.9%. Furthermore, bronchiectasis is the most commonly observed radiological abnormality in these patients. Also, there is a significant occurrence of bronchiectasis in the Granulomatous Lymphocytic Interstitial Lung Disease (GL-ILD) group, with a prevalence rate of 31.3%. Research indicates that individuals diagnosed with CVID who also have bronchiectasis have insufficient forced expiratory volume in one second (FEV1). Furthermore, patients with bronchiectasis experience a higher frequency of respiratory tract infections and a diminished quality of life. Conclusion: Bronchiectasis is the predominant radiological observation in individuals with CVID, resulting in a reduction in FEV1, as well as recurrent infections in the lower respiratory tract. Additionally, individuals diagnosed with bronchiectasis exhibited reduced levels of serum immunoglobulin A (IgA) and immunoglobulin M (IgM). This study offers a fresh outlook and emphasizes the significance of early diagnosis and the need for enhancements in treatment approaches.

Keywords : common variable immunodeficiency -, bronchiectasis, forced expiratory volume in one second (FEV1), respiratory tract infections

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