

Clinical features of asthma with comorbid bronchiectasis: a systematic review and meta-analysis.

shiqi zhang¹, xiaofeng xiong¹, zuohong wu¹, tingting huang¹, and deyun cheng¹

¹Affiliation not available

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Abstract

Objective: This meta-analysis aimed to systematically estimate the prevalence of comorbid bronchiectasis in patients with asthma and to summarize its clinical impact. **Data sources:** Embase, PubMed, and Cochrane Library electronic databases were searched to identify relevant studies published from inception until March 2020. **Study Selection:** Studies were included if bronchiectasis was identified by high-resolution computed tomography. **Outcomes** included prevalence of bronchiectasis and its association with demographic characteristics and indicators of asthma severity, including results of lung function tests and number of exacerbations. **Results:** Five observational studies with 839 patients were included. Overall, the mean prevalence of bronchiectasis in patients with asthma was 36.6% (307/839). Patients with comorbid bronchiectasis had lower forced expiratory volume (FEV1)/forced vital capacity (FVC) (MD: -2.71; 95% CI: -3.72 to -1.69) and more frequent exacerbations (MD: 0.68; 95% CI: 0.03 to 1.33) than those with asthma alone, there was no significant difference of sex, duration of asthma and serum levels of immunoglobulin(Ig)Es between asthmatic patients with or without bronchiectasis. **Conclusion:** The presence of bronchiectasis in patients with asthma was associated with greater asthma severity. There are important therapeutic implications of identifying bronchiectasis in asthmatic patients.

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Author information

Shi-qi Zhang¹, Xiao-feng Xiong¹, Zuo-hong Wu¹, Ting-ting Huang¹, De-yun Cheng^{1*}

¹Department of Respiratory and Critical Care Medicine, West China Hospital, Sichuan University, Chengdu 610041, China

***Corresponding author :** De-Yun Cheng (Doctor's degree, professor of medicine), E-mail: chengdeyunscu@163.com

Address: NO. 37 Guoxue Alley, Chengdu, Sichuan, 610041, China

Tel: +8602885423331

First author: Shi-qi Zhang (Master's degree).

Second author: Xiao-feng Xiong (Doctor's degree).

Third authors: Zuo-hong Wu (Doctor's degree) , Ting-ting Huang (Master's degree) .

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Compliance with ethical standards

Research involving Human Participants: For this type of study formal consent is not required.

Informed consent: Not applicable.

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Author Contributions

Shi-qi Zhang and Xiao-Feng Xiong performed the literature searches, selected the studies, analyzed the data and wrote the manuscript draft. Ting-ting Huang and Zuo-hong Wu aided in the data analysis. De-Yun Cheng designed the study and revised manuscript.

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