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Clinical characteristics in patients with non-cystic fibrosis bronchiectasis and co-existing airway diseases in Chinese population

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Introduction

• Bronchiectasis, asthma and chronic obstructive pulmonary disease (COPD) are common respiratory diseases among Chinese population

• The reported prevalence of bronchiectasis in patients with COPD ranges from 4% to 72% in different studies

• Asthma has been reported in about 3–8% of all bronchiectasis patients

Methodology

• A cross–sectional observational study was conducted to investigate the clinical characteristics non-CF bronchiectasis with co-existing asthma and COPD in Chinese population in Queen Mary Hospital

• Total 350 Chinese patients were included in the study

Results

- Co-existing COPD and asthma are seen in 26 (7.4%) and 35 (10.0%) of the patients respectively
- Patients with bronchiectasis and co-existing COPD are older, more smoker, more likely to have dyspnea, with lower FEV1/FVC ratio and higher risk of exacerbation requiring hospitalization compared with those with pure bronchiectasis
- For patients with co-existing asthma and bronchiectasis, they are younger, diagnosed to have bronchiectasis at younger age and have lower FEV_1 compared than those with pure bronchiectasis

Table

Table 1: Clinical features of patients with co-existing COPD, compared with those without COPD

	Multivariate analysis OR and 95% CI	**p value**
Age	1.055 (1.002 – 1.110)	0.041
Dyspnea	8.562 (1.221 – 60.028)	0.031
FEV1 /FVC	0.817 (0.719 – 0.928)	0.002
Hospitalized AE	8.947 (2.579 – 31.033)	0.001

Table 2: Clinical features of patients with co-existing asthma, compared with those without asthma

	Multivariate analysis OR and 95% CI	**p value**
Age	0.962 (0.930 – 0.996)	0.028
Age of diagnosis of bronchiectasis	0.962 (0.936 – 0.989)	0.018
FEV1 percentage	0.975 (0.959 – 0.992)	0.004

Conclusion

• Co-existing asthma or COPD with bronchiectasis have distinct clinical characteristics which have therapeutic and prognostic implications

Reference

1.Huang HY, Chung FT, Lo CY, Lin HC, Huang YT, Yeh CH, et al. Etiology and characteristics of patients with bronchiectasis in Taiwan: a cohort study from 2002 to 2016. BMC Pulm Med. 2020;20(1):45.

2.Yotsukura M, Yasuda H, Shigenobu T, Kaseda K, Masai K, Hayashi Y, et al. Clinical and pathological characteristics of EGFR mutation in operable early-stage lung adenocarcinoma. Lung Cancer. 2017;109:45-51.

3.Patel IS, Vlahos I, Wilkinson TM, Lloyd-Owen SJ, Donaldson GC, Wilks M, et al. Bronchiectasis, exacerbation indices, and inflammation in chronic obstructive pulmonary disease. Am J Respir Crit Care Med. 2004;170(4):400-7.

4. Lonni S, Chalmers JD, Goeminne PC, McDonnell MJ, Dimakou K, De Soyza A, et al. Etiology of Non-Cystic Fibrosis Bronchiectasis in Adults and Its Correlation to Disease Severity. Ann Am Thorac Soc. 2015;12(12):1764-70.

5. Kapur N, Petsky HL, Bell S, Kolbe J, Chang AB. Inhaled corticosteroids for bronchiectasis. Cochrane Database Syst Rev. 2018;5:CD000996.

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