



# The role of the systemic inflammation in bronchiectasis exacerbation frequency

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## Abstract

**Background:** Although inflammation is a helpful and essential response to protect an individual organism against both external and internal harmful stimuli, inflammation induces significant injury to cells, tissues and organs. The study aimed to detect if systemic inflammation plays role in bronchiectasis (B) exacerbations promoting.

**Materials and methods:** 77 patients with stable B confirmed by chest HRCT were included. Exacerbation frequency (EF) during the previous year was defined in medical source documentation. The level of C-reactive protein (CRP) was determined in sera with the latex-turbidimetric method. The methods of descriptive and non-parametric statistics were used to process the results.

**Results:** The median age was 56 (39;65) years, 26 were men (33.8%). The level of CRP was elevated in 24 patients (31.2%), the median level was 5.8 (4.4;13.9) mg/l. The median number of exacerbations per year was 2 (1;4), 37 patients (48.1%) had 3 and more exacerbations per year. Among patients 24 with elevated level of CRP, 15 had frequent exacerbations (62.5%), among 53 patients with normal CPR – 22 (41.5%), the difference was statistically significant ( $p=0.002$  by xi-square test).

**Conclusions:** One third of patients with bronchiectasis had signs of systemic inflammation even while stable. Frequent exacerbators were more common among patients with elevated CRP, which could be a sign of a connection between the systemic inflammation and lung injury.

[Bronchiectasis](#) [Inflammation](#) [Exacerbation](#)

## Footnotes

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