



Use of Decamethoxinum in bronchiectasis

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Abstract

The respiratory microbiota in patients (p) with bronchiectasis (B) plays a great role in the etiology and pathogenesis of B. The study aimed to determine lung microbiota composition during stable disease and the effect of Decamethoxinum (DECASAN®) inhalations on it. Cohort of patients in stable phase with confirmed by HRCT B was included. Isolation and identification of pathogens were conducted by bacteriological methods. Nebulized inhalations of antimicrobial drug DECASAN® (0.8 mg) were carried out twice a day, duration-14 days. Sputum samples were examined on the baseline and after 14 days of treatment. 60 p were examined. The average age -52.9 ± 14.3 years, 15 of them were men (25%). Pathogens were detected in 37 (61.7%) samples (s), the combination of pathogens in seven (11.7%) patients. *P.aeruginosa* (PA) was identified in 13 (21.7%) s, its combination with *H.influenza* in one patient (1.7%) and *A.niger* in one patient (1.7%). Among the pathogens identified in the remaining 24 patients were: *H.influenza* – in 13 s (21.7%), *H.parainfluenza* – in one patient (1.7%), NF gram negative bacilli – in one patient (1.7%), *S.aureus* – in two patients (3.4%), *C.albicans* – in four patients (6.8%), *S.pneumoniae* in two patients (3.4%), *A.niger* in one patient (1.7%). DECASAN® took 24 p, five p had combination of pathogens (p without sputum colonization and p colonized by PA were excluded). Their median bacterial load at the beginning of treatment was $6 \log_{10} \text{CFU} \cdot \text{g}^{-1}$ (5; 7.5), after 14 days - $4 \log_{10} \text{CFU} \cdot \text{g}^{-1}$ (0; 6). P on the treatment had a significant reduction ($p=0.0006$ by the Wilcoxon test) in total sputum bacterial load. 10 (41.7 %) out of 24 subjects reported pathogen eradication. DECASAN® showed effectiveness in p with colonized sputum by non-PA pathogens.

[Bronchiectasis](#) [Treatments](#) [Microbiome/Microbiota](#)

Footnotes

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