Incidence of different pathogens and sensitivity to antimicrobials in an adult CF center in Greece during 2002–2009

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Objectives: The aim of this study was to investigate the incidence of different pathogens responsible for respiratory tract infections in adults with cystic fibrosis (CF) followed up in our department, through 2002–2009.

Patients and Methods: Data from 40 patients with CF (mean age 30.7±2.2, SS 71±8), were analyzed. 620 sputum samples were cultured for common pathogens and a growth of >10^8 cfu was considered as positive. Vitek2 system was used to identify bacterial strains and detect MIC and FISH method was used to screen samples for B. cepacia. As chronic colonization with Pseudomonas aeruginosa was defined patients with at least 3 positive cultures for a 6-month period and increased antisupersomal antibodies levels (measured by serum ELISA method).

Results: The commonest isolate was Pseudomonas aeruginosa (68%) with resistance to tobramycin and ciprofloxacin 58% and 50% respectively in 2009, followed by S. aureus (12.5%) and H. influenzae (8.8%). Most P. aeruginosa strains were of mucoid phenotype (80%). There is an increasing rate up for A. xylosoxidans, mainly in patients with chronic colonization. No B. cepacia was detected in any sample.

Conclusion: The microbiological data of respiratory infections in CF patients followed up at our center are generally according to literature. There is an increasing incidence of A. xylosoxidans the last years. The increasing rate of P. aeruginosa resistance to tobramycin and ciprofloxacine is alarming for appropriate use of antimi-

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5. Bronchial colonization features of cystic fibrosis patients over two different periods in a single CF unit in Madrid (Spain), 1995–97 vs 2006–08

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Background: Dynamics of bacterial colonization in cystic fibrosis (CF) patients might have change over the last years. Patters of respiratory bacterial colonization from two different follow-up periods were compared: 1995–97 vs. 2006–08.

Material and Methods: We compare two different stages: period A (1995–1997) including 81 patients and period B (2006–2008) with 127 patients. Clinical and microbiological results were retrospectively recovered, focusing in bacterial pathogens, and taking account all respiratory follow-up samples. To better understand the pulmonary colonization, different age-segments were contemplated, as well as three categories: non-colonized, colonized/infected intermitently, and colonized/infected chronically.

Results: S. pneumoniae and H. influenzae was only observed in the early ages. The most frequent pathogens detected in both A and B periods were P. aeruginosa (69% and 52%) and S. aureus (75% and 58%), respectively. In the period B colonization by pathogens was retarded. Coexistence of several pathogens was a common feature in both stages, finding only differences for S. aureus + H. influenzae, which increased significantly from 0% in the first period A to 27% in the second one. Approximately the half of the 35 years patients in the period B were classified as non-infected, whereas in the period A all of them were colonizer/infected at least by P. aeruginosa.

Conclusions: Patters of bacterial bronchopulmonary colonization have change in our patients over the last decade, with a decrease in P. aeruginosa and S. aureus colonization and early acquisition of these pathogens. Introduction of inhaled therapy might have contributed to these results.