Bronchiectasis non cystic fibrosis: clinical and microbiological features

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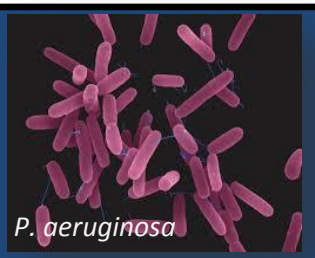
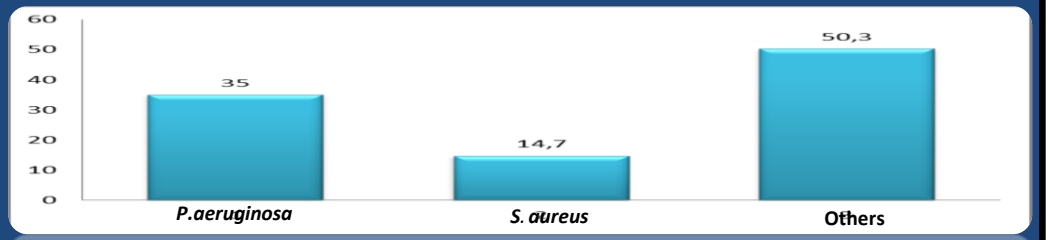
INTRODUCTION

Bronchiectasis is an abnormal and irreversible dilation of the bronchial tree. Classically, it has been classified as bronchiectasis due to cystic fibrosis and bronchiectasis not due to cystic fibrosis. Bronchiectasis non-cystic fibrosis is the more common one and affects a heterogeneous population and can have very different etiologies. They tend to occur with chronic bronchial infection or inflammation which is associated with progression of the disease. The goal of this study was to identify the prevalence of the microbial species in relation with the clinical/radiological characteristics in a cohort of patients being followed by the BQ non-CF of our hospital during a five-year period.

MATERIALS AND METHODS

Retrospective study. Period: 01/01/2008-10/10/2013. As sources of data, we used the Microbiology Informatics System (OpenLab) and the electronic clinical history of Galicia (IANUS). A statistical analysis was performed with SPSS v.20.Pacientes: 34. Location: Sanitation area of Santiago de Compostela (Population: 458,759). Respiratory sample: sputum. Microbiological processing: Gram staining and culture in blood agar, chocolate, Sabouraud and E.M.B. Bacterial identification: Vitek 2 automated system (bioMérieux, France) and Microscan walkaway (Siemens, Germany). Pulmonary function: spirometry. Radiological exploration: TCAR.

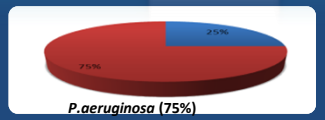


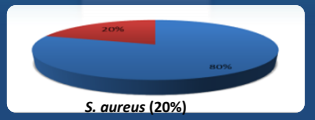


RESULTS

The total number of samples processed was 716. An average of 17 samples were studied per patient (range 1-91). 68% of the patients were women. The average age was 57 years (range 18-85). Of the 34 patients, 32.35% (11/34) and 14.7% (5/34) expressed *P.aeruginosa* and *S.aureus,* respectively, at some point in the sputum culture. 75% of the patients in whom *P.aeruginosa* presented an obstructive ventilation pattern, compared to those infected with *S.aureus* where the obstructive pattern was seen in 20% and normal in 40%. The radiological exploration showed affectation of two or more lobules in more than 90% of the cases. Of the patients in whom only other pathogens causing respiratory infection were isolated (*H.influenzae*, *S.pneumoniae* and enterobacteria), 20% had a normal respiratory pattern (57%), and the pulmonary radiological affectation was less extensive.

Obstructive pattern





CONCLUSIONS

The responsible microbial species isolated coincide with those described in the literature. The respiratory function in these patients indicates an obstructive pattern in both *P. aeruginosa* as well as in *S.aureus*, which was more marked in those patients in whom *P.aeruginosa* had been isolated. The worsening of the respiratory function is related with the natural history of the microbiological progression of the illness.