

**P1442**

**Paper Poster Session**

**Non-tuberculous mycobacteria**

**Mycobacterium abscessus infection in adult patients with cystic fibrosis: clinical and microbiological outcomes**

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**Background:** *Mycobacterium abscessus* is a rapidly growing, multiresistant pathogen which is increasing in cystic fibrosis (CF) population and it can cause rapid deterioration in lung functions. We aimed to assess *M.abscessus* infection prevalence and associated clinical and microbiological features in our CF clinic.

**Material/methods:** This is a retrospective observational study and all adult patients with CF who attended Hacettepe University from January 2011 to October 2015 were included. All these patients were screened for nontuberculous mycobacterial (NTM) infection annually after diagnosis of CF. Clinical and microbiological outcomes of the patients with at least one positive culture for *M.abscessus* were evaluated. *M.abscessus* was cultured using a commercial liquid culture platform and identification confirmed by Mycobacteriology Reference Laboratory in Ankara, Turkey.

**Results:** 61 patients with CF followed up at our clinic were screened for *M.abscessus*. The age of the patients ranged from 18 to 40 years (mean 22.5 years). 32 patients were male and 29 were female. Average follow-up duration was 17 years (range 1-27 years). Five patients (%8, two males) had at least one positive culture for *M.abscessus*. Their mean age at the diagnosis of first positive culture for was 26.6 years (range 24-29 years). All had initial symptoms including cough and sputum production. Clinical and microbiological details are presented in Table1. Four patients were on inhaled tobramycin or colistin therapy for chronic *Pseudomonas* infection, but none was on azithromycin. Chest radiographs and CT showed widespread bronchiectatic changes. Only Case1 had bilateral nodules which is specifically associated with NTM infection. Two patients met the American Thoracic Society criteria for NTM pulmonary disease. *M.abscessus* was eradicated with meropenem, clarithromycin and amikacin for 6 months in Case5, but no eradication was achieved with a 13 months therapy in Case1.

**Conclusions:** This is the first study from Turkey about *M.abscessus* infection in adult CF patients. All positive cultures occurred in the last five years. CT findings were not diagnostic except in one patient. One of infected patients had persistent lung disease despite prolonged antibiotic therapy. Prognosis of other colonized patients couldn't be predicted with the available data. Large scale studies are urgently needed for defining prognostic factors and the best of therapy.

Table 1

Case	Age	CFTR mutation	<i>P.aeruginosa</i>	ABPA	CFRD	Pancreatic insufficiency	FEV1%-predicted
1	24	N1303K / -	+	-	-	+	31
2	26	G542X / -	+	+	-	-	29
3	27	I148T / -	+	-	+	+	21
4	27	2789+5G-A / -	-	-	-	+	87
5	29	ΔF508 / ΔF508	+	-	+	+	30

Abbreviations:

CFTR: cystic fibrosis transmembrane conductance regulator

ABPA: allergic bronchopulmonary aspergillosis

CFRD: cystic fibrosis related diabetes

FEV: forced expiratory volume