10.12 Clinical associations and implications of non-tuberculous mycobacteria (NTM) positive-culture in cystic fibrosis: An epidemiological analysis

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Background: Non-tuberculous mycobacteria (NTM) cause morbidity in individuals with pre-existing lung disease including cystic fibrosis (CF). Understanding the implications of NTM positive-culture on disease trajectory and management remains challenging. We analysed the epidemiological characteristics to identify clinical associations with NTM in an Irish CF cohort.

Methods: We evaluated age, BMI, FEV 1 trends, CF-ABLE score (1), bacterial colonisation, vitamin D levels and diabetes status among CF patients with NTM positive-culture.

Results: 22 CF patients isolated NTM. Mean age was 26 years. Mean BMI was 23.1. 8 individual species of NTM were identified. (Figure 1) Vitamin D deficiency n=9. Diabetes n=5. Mean FEV1 (%predicted) at year -1, 0 and 1 (relative to NTM isolation) was 79, 74 and 79. Mean CF-ABLE score was 1.5 at all timepoints. The average number of exacerbations requiring treatment within twelve months of isolating NTM was 1/annum.

Conclusion: Our incidence of NTM reflects global trends. (2) A diverse population of NTM species were isolated, 12 slow-growing and 10 rapidly-growing. NTM did not result in a decline in FEV1, increased exacerbation frequency or an increase in CF-ABLE score. NTM positive-culture in patients with CF may be associated with vitamin D deficiency but not diabetes.

Keywords: Non-tuberculosis mycobacteria (NTM), cystic fibrosis (CF).

Disclosures:

Conflict of Interest: The authors declare that they have no conflict of interest.

References:

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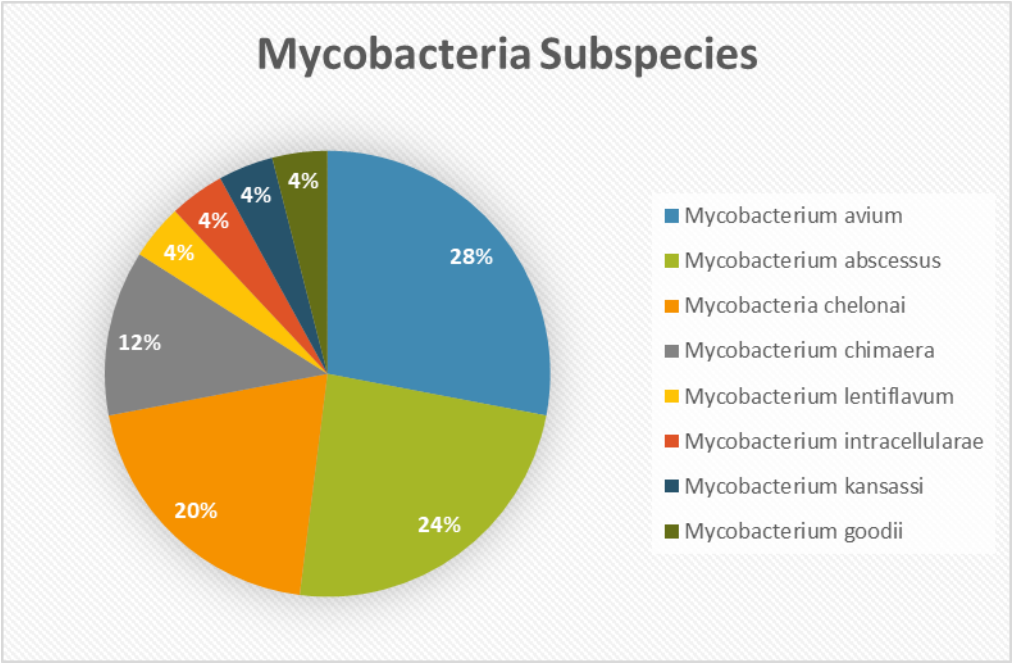
Figure 1: Mycobacteria subspecies isolated among CF cohort.


Mycobacteria Subspecies
28%
24%
20%
12%
4%
4%
4%
4%
Mycobacterium avium
Mycobacterium abscessus
Mycobacteria chelonai
Mycobacterium chimaera
Mycobacterium lentiflavum
Mycobacterium intracellularae
Mycobacterium kansassi
Mycobacterium goodii