

EDITORIAL

Colonization with *Mycobacterium avium* complex – an outdated concept

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Traditionally, culture of *Mycobacterium avium* complex from the sputum was associated with a disease complex similar to tuberculosis or represented asymptomatic colonization. Upper lobe fibrocavitary lung disease was most often seen in middle-aged males who usually were heavy smokers and abused alcohol. Bronchiectasis, prior mycobacterial disease, and chronic obstructive lung disease were conditions that were thought to predispose to colonization of the airway by *M. avium* complex [1–3]. However, in the last 20 yrs, *M. avium* complex has become increasingly associated with specific clinical syndromes in normal hosts. One of the first such syndromes was the association of *M. avium* complex with pulmonary nodules in middle-aged-to-elderly females [4]. More recently, *M. avium* complex has been associated with bronchiectasis [5, 6]. Initially, the bronchiectasis was thought to be the cause of the *M. avium* infection and treatment recommendations were usually directed at the bronchiectasis rather than the *M. avium*. However, with the development of computed tomography (CT) of the chest, it has become relatively easy to document bronchiectasis and small nodules in patients with "colonization" of their airways by *M. avium*. Similarly, in a series of 100 patients with a CT diagnosis of bronchiectasis, small nodules predicted positive *M. avium* complex cultures with a sensitivity of 80% and a specificity of 87% [7].

In this issue of the *European Respiratory Journal*, FUJITA *et al.* [8] have added to our knowledge of this disease by showing, in a careful pathological and radiological correlation, that the granulomas in *M. avium* complex infection were causing the bronchiectasis and bronchiolitis seen on CT scans. Thus, it is now clear that bronchiectasis can be caused by *M. avium* complex. The question today is not whether or not *M. avium* complex can cause bronchiectasis, but when should *M. avium* complex infection be treated.

Today, this question is increasingly important as the chemotherapy of *M. avium* complex has become safer and more effective. Initial treatment regimens for the non-human immunodeficiency virus positive patient now include clarithromycin or azithromycin with rifabutin or rifampicin and ethambutol [9, 10]. These regimens are better tolerated and more effective than the four- or five-drug regimens previously recommended. Optimal length of therapy is still uncertain but a negative culture for 10–12 months should assure a near complete success rate.

Thus, all patients with radiographic evidence of bronchiectasis should be tested for positive culture of *M. avium* complex. Bronchoscopy and lavage of the affected area may increase the yield of positive cultures [11]. Similarly,

patients with cultures positive for *M. avium* complex should be assessed for the presence of bronchiectasis. Since this can be a slowly growing progressive infection, careful follow-up with repeated cultures and chest radiographs and CT scans may be needed. The term "colonization" should no longer be used to refer to patients with repeated positive cultures of *M. avium* complex [12]. Careful investigation has indicated that these patients have disease.

References

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