Pulmonary non-tuberculous mycobacterial infections: current state and future management

ABSTRACT

Currently, there is a trend of increasing incidence in pulmonary non-tuberculous mycobacterial infections (PNTM) together with a decrease in tuberculosis (TB) incidence, particularly in developed countries. The prevalence of PNTM in underdeveloped and developing countries remains unclear as there is still a lack of detection methods that could clearly diagnose PNTM applicable in these low-resource settings. Since non-tuberculous mycobacteria (NTM) are environmental pathogens, the vicinity favouring host-pathogen interactions is known as important predisposing factor for PNTM. The ongoing changes in world population, as well as socio-political and economic factors, are linked to the rise in the incidence of PNTM. Development is an important factor for the improvement of population well-being, but it has also been linked, in general, to detrimental environmental consequences, including the rise of emergent (usually neglected) infectious diseases, such as PNTM. The rise of neglected PNTM infections requires the expansion of the current efforts on the development of diagnostics, therapies and vaccines for mycobacterial diseases, which at present, are mainly focused on TB. This review discuss the current situation of PNTM and its predisposing factors, as well as the efforts and challenges for their control.