

MEHDI
MIRSAIEDI: NTM are environmental bacteria. That means that they are everywhere around us. They are in the water, in soil, in dust, in air. But within big numbers of them-- right now we have more than 200 bacteria in this group-- almost 20 of them are most pathogenic for humans. One is mycobacterium avium complex, that we call MAC. And MAC is the most common pulmonary disease with this kind of bacteria in the United States and many parts of the world.

Mycobacterium abscesses is the second most common NTM in the United States. And after that, we have mycobacterium kansasii that some people in some regions in the United States can be involved with this bacteria. So what is importance of this new kind of emerging bacteria?

It's almost 20 years that we are seeing increasing number of patients with NTM in the United States and many parts of the world. This infection can cause significant problem in the lungs, and sometimes can kill people. We find out that NTM can cause mortality. And people with advanced lung disease-- they are a high risk for this disease, and may die because of this infection.

NTM mostly causes lung disease, but can evolve every single organ in the body. It can be involved in skin, bones, brain, heart, and also in the intestine. And different types of presentation may happen because of the different organ involvement.

The incidence and prevalence of the disease, as I mentioned, is rising, particularly for the people that have underlying lung disease. One of those is bronchiectasis. People with bronchiectasis, they have more than 100 times higher risk for this infection. COPD patients, they have higher risk for this infection, and that is more than 30 times higher than people without this disease.

People with cystic fibrosis-- that is a kind of infection disease and genetic disease in the lung-- they are higher risk for this disease as well. Asthma is a high risk, and people that are using medications that suppress immune system, particularly people with prednisone and other groups of suppressive medications, TNF alpha inhibitors are high risk for NTF.