Cystic Fibrosis Research News

Title:
Screening for Nontuberculous mycobacteria (NTM) in people with Cystic Fibrosis (CF)

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What was your research question?
Can a urine test identify individuals with CF who are unlikely to have an infection with nontuberculous mycobacteria (NTM) in their lungs?

Why is this important?
Currently, sputum cultures are the only way to screen for an infection with NTM.
However, cultures may not accurately detect the infection and are increasingly difficult to obtain from children and adults on CFTR modulator therapy. Guidelines recommend people with CF should be screened for NTM each year, but recent studies have shown very few meet this goal.

What did you do?
We enrolled 44 people with CF in a study to assess whether a urine test could accurately determine which of these people had previously or currently had positive sputum cultures for NTM. We used a method that detects one of the components of NTM.

What did you find?
The urine test perfectly identified the 14 individuals who had never had a positive NTM sputum culture, and the 30 with a history of positive cultures. The urine test was also shown to change from negative to positive in one person who acquired NTM during the course of the study.

What does this mean and reasons for caution?
These findings suggest that testing urine may identify individuals who are unlikely to have a positive sputum culture and eliminate the need for further NTM screening by sputum.

However, larger studies that monitor people with CF over several years will be needed to prove these findings.

What's next?

A 3-year study has been approved by the United States CF Foundation to test these results, and develop maybe even easier techniques than the urine test.

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