

Cystic Fibrosis Research News

Title:

CONTINUOUS GLUCOSE MONITORING GUIDED INSULIN THERAPY IS ASSOCIATED WITH IMPROVED CLINICAL OUTCOMES IN CYSTIC FIBROSIS-RELATED DIABETES.

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What was your research question?

Does giving insulin based upon early signs of diabetes seen on continuous glucose monitoring improve health in people with CF?

Why is this important?

Continuous glucose monitors (CGM) are small sensors with a tiny needle that sits just under the skin and can be worn for a few days. They are able to detect evidence of diabetes earlier than traditional methods such as oral glucose tolerance tests, which are burdensome for patients, and do not provide as much data as CGM on how a person with CF processes sugar. However, there has not been much research into whether treating these early signs of CF related diabetes improves patient health. Given that CF related diabetes is associated with faster lung function decline, it is important to know if treating early signs of diabetes is beneficial.

What did you do?

We looked at all people with CF who had CGM at our hospital. If there was evidence of diabetes they were treated with insulin or in some cases asked to change their diet. We then looked at what happened to their health over the next 12 months. We were particularly interested in lung function and weight. We compared changes to lung function and weight at three months and then also at 12 months.



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What did you find?

We found that three months of insulin significantly improved lung function and weight. After a year of insulin treatment the change in lung function was also better than in the year before insulin treatment.

What does this mean and reasons for caution?

Our results suggest that treating early signs of diabetes with insulin can lead to better health outcomes in people with CF. However, this was a retrospective study and was only performed in one centre, we need to trial this treatment approach in other centres.

What's next?

More research is needed to establish exactly when the best time to start insulin treatment is.

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