Cystic Fibrosis Related Diabetes: Patient Information Part 2

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Introduction:

Unfortunately, Cystic Fibrosis (CF) is not a condition that is limited to the lungs. The same inflammation and scarring that affect the lungs can also affect the pancreas and cause Cystic Fibrosis Related Diabetes (CFRD). CFRD affects up to 10-20% of adolescents and 30-40% of adults >30 years with CF. CFRD is associated with lower nutrition, weight loss, declines in lung function and increased pulmonary exacerbations. CFRD can be silent in its early stages, without classic symptoms of diabetes such as excess thirst, increased urination, and weight loss. However, CFRD can be associated with trouble gaining or maintaining weight and poorer lung health. Thus, it is important to diagnose diabetes early and initiate appropriate treatment.

Evaluation:

Since CFRD may not present with any symptoms, it is important to screen for the diagnosis regularly. Every person with CF should have an annual oral glucose tolerance test (OGTT) after 10 years of age to screen for CFRD. The OGTT involves drinking a sugary drink (Glucola) after an overnight fast. Blood sugars are checked fasting ("0 hour") and 2 hours after consumption of this drink. Some centers will also check a 1 hour blood sugar. If you have had problems completing the OGTT in the past, please discuss your concerns with your health care provider.

Diagnosing CFRD:

Your health care team will evaluate the blood sugars on the OGTT. They will assess the 0 hour, 1 hour and 2 hour levels to see if there is CFRD. It is not uncommon for abnormal blood sugars to appear in CF, especially an elevated 1 hour blood sugar. However, in order to diagnose full CFRD, the health care team will look for the following:

- blood sugar elevations ≥200 mg/dL at the 2 hour blood sugar (most common)
- elevations in fasting blood sugar (0 hour blood sugar)
- elevations in hemoglobin A1c, a lab test that is a marker of diabetes risk (>6.5% is concerning)
- blood sugar elevations during circumstances such as acute illnesses

Treatment:

CFRD is managed by a team of providers, which in addition to your pulmonologist, includes endocrinologists, diabetes educators, nutritionists, social workers, and/or psychologists.

Insulin is the recommended treatment for CFRD. A diagnosis of diabetes and the need for insulin can be overwhelming. However, diabetes technologies are increasingly available and can reduce the burden of care associated with delivering insulin and monitoring blood sugars.

Discuss these options with your health care provider to determine what treatment strategies will be best for you or your child.

For More Information:

https://www.cff.org/managing-cf/cystic-fibrosis-related-diabetes

https://beyondtype1.org/what-is-cystic-fibrosis-related-diabetes/

https://www.cff.org/sites/default/files/2022-05/CFRD-Manual-2015.pdf