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primary studies - published, non RCT

## Microvascular complications in cystic fibrosis-related diabetes.

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**Author:** Schwarzenberg SJ

### Study design (if review, criteria of inclusion for studies)

non-randomized study

### Participants

Database review was performed

### Outcome measures

diabetes duration and the results of annual urine albumin-to-creatinine ratio (U(alb:Cr)) screening and dilated retinal exams. In addition, 59 individuals underwent detailed retinopathy, nephropathy, neuropathy, and gastroenteropathy screening.

### Main results

During 1990-2005, 775 patients aged  $\geq 6$  years were followed. CFRD was diagnosed by an oral glucose tolerance test or fasting hyperglycemia in 285 subjects (52% female), 64% of whom had fasting hyperglycemia. Most patients with CFRD without fasting hyperglycemia progressed to CFRD with fasting hyperglycemia over time. No subject with CFRD without fasting hyperglycemia had retinopathy or abnormal U(alb:Cr). In CFRD subjects with fasting hyperglycemia and diabetes for  $\geq 10$  years, 14% had microalbuminuria and 16% had retinopathy. Autonomic neuropathy and gastrointestinal symptoms each were seen in 52% and somatic abnormalities in 22% of patients with or without fasting hyperglycemia.

### Authors' conclusions

Diabetic microvascular complications occur in CFRD, although the prevalence of retinopathy and nephropathy appears to be less than that found in other forms of diabetes. Annual complication screening should occur after known diabetes duration of 5 years in patients with CFRD with fasting hyperglycemia.

<http://dx.doi.org/10.2337/dc06-1576>

### See also

Diabetes Care. 2007 May;30(5):1056-61

### Keywords

Diabetes Mellitus; Pancreatic Diseases; Gastrointestinal Diseases;