## 304 Incretin-based treatment of diabetes related to cystic fibrosis: a case study

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**Objectives:** The most common co-morbidity of cystic fibrosis is probably diabetes. Pharmacotherapy of cystic fibrosis related diabetes (CFRD) is so far restricted to treatment with insulin. The primary defect in CFRD is a progressive insulin deficiency. In CFRD the incretin system is impaired and postprandial hyperglycemia the major clinical problem. In type 2 diabetes incretin-based treatment improves glucose-dependent insulin release and minimizes the risk of hypoglycemia. The introduction of incretin-based therapy in CFRD may therefore be an alternative or complement to insulin treatment. The aim of this study is to investigate if oral incretin therapy with a dipeptidyl peptidase-4 (DPP-4) inhibitor is useful for treatment of CFRD.

**Methods:** The DPP-4 inhibitor sitagliptin was given to 8 patients with CFRD with previous insulin therapy. All subjects suffered from problems with the glucose regulation. Six patients received 100 mg sitagliptin once daily and one patient 50 mg. Six patients were treated only with sitagliptin and 2 patients received additional insulin. So far the duration of the sitagliptin treatment varies from 2 to 21 months.

**Results:** The sitagliptin treatment was well tolerated without side effects. All subjects reached a stable and satisfactory glycemic control.

**Conclusion:** Incretin-based therapy with DDP-4 inhibitors is a promising new alternative for treatment of CFRD.