

## Efficacy of a fixed combination of insulin degludec and GLP-1 receptor agonist liraglutide (Xultophy) in patient with type 2 diabetes

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### Background:

The fixed combination of insulin degludec and liraglutide- Xultophy is a newer therapy available for treatment of type 2 diabetes (DM2). Insulin degludec is an ultralong-basal insulin analogue and liraglutide is a glucagon-like peptide-1 receptor agonist. In this case we monitor values of HbA1c as a marker of glycemia regulation and predictor of vascular incidents, but also fasting glucose, HDL, LDL and triglycerides were observed.

### Case presentation:

A male patient, age 62, was initially admitted as a new in Diabetology clinic, due to need for better control of diabetes. Prior to the control, patient suffered from DM2 for more than 20 years, had ITM of 31.59 kg/m<sup>2</sup>, had advanced retinopathy and ES of the heart had been implatated (2013). The basal bolus therapy consisted of Novorapid (short-acting insulin) and Lantus (long-acting insulin). Laboratory measurements made in the morning of first control were: HbA1c 9.4 mmol/L, fasting glucose (fBG) 12.2 mmol/L and postprandial glucose 17.5 mmol/L. New therapy program was instructed with Xultophy being the only therapy in a regulation of hyperglycemia; had GI side effects on metformin. Next control was in three months and patient followed diet and therapy as prescribed. HbA1c and ITM were significantly reduced, with ITM being 27.18 kg/m<sup>2</sup> and HbA1c 7.8 mmol/L. No side effects were registred.

### Conclusion:

Based on results we may conclude that this new available therapy had a good impact on HbA1c level and fBG. More followings of this patient and many others are needed in order to really estimate the efficacy of Xultophy on levels of HbA1c and glucose, but also impact on reducing the risk of vascular incidents.

**Keywords:** DM2, HbA1c, insulin degludec, liraglutide