Changes in diabetes related quality of life and clinical outcomes in patients with type 2 diabetes after initiation of injectable treatment.

Georgios K. Georgas

Endocrine Private Clinic, Er. Stavrou 23, Rhodes, Greece.

OBJECTIVES

- 1. To detect the changes in quality of life after initiation of injectable treatment for diabetes.
- 2. To evaluate the changes in anthropometrics (BW, WC, BMI), glycemic control (Random PG, Hba1c), lipids profile (TC, TG, LDL, HDL), kidney function (creatinine, microalbumin/creatinine ratio), systolic and diastolic blood pressure (SBP/DBP) and hypoglycemic episodes (number and severity) after GLP-1 analogs or insulin commencement.

METHODS

123 patients with DM-2 that accordingly to the based on evidence clinical judgment, needed injectable treatment for the achievement of good glycemic control were enrolled (insulin 102: glargine 60 / detemir 42 – GLP 1 analog 21: liraglutide 16 / exenatide 5).

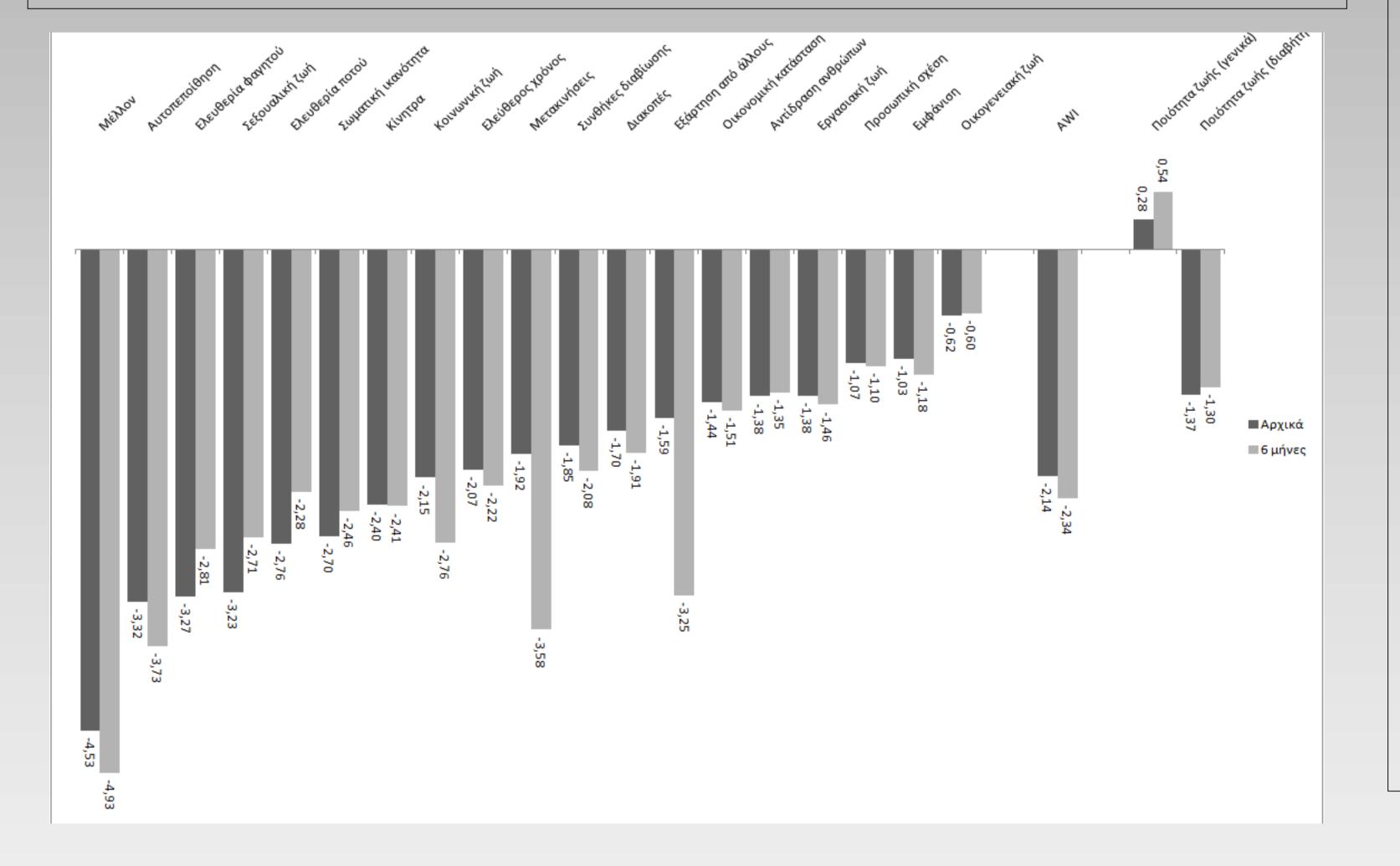
The ADDQoL19 (Greek for Greece 19.5.09A from standard UK English rev. 1.3.06) was filled out before and 6 months after commencement of injectable treatment.

Clinical parameters were estimated at the enrollment and at 6 months after.

Frequency of hypoglycemic episodes was estimated with numbers of hypos at the last 2 weeks and severity was evaluated depending on the ability of hypos resolved the patient his own (h.r.o.), resolved with other person assistance but not professional (h.n.prof.ass.) and resolved with professional assistance (h.prof.ass.).

Dose adjustment of insulin or GLP -1 analog was done after phone conducts at regular intervals.

- •Quality of life: overview item I total sample, glargine sub., detemir sub. GLP 1 sub. p < 0.001overview item II total sample, glargine sub., detemir sub., GLP – 1 sub. p NS AWIS total sample, glargine sub., detemir sub., GLP - 1 sub. p < 0.001
- •Anthropometrics: BW, WC, BMI total NS, glargine sub. p < 0.05, detemir sub. p NS, GLP-1 sub. p < 0.05).



RESULTS

•Glycemic control: Hba1c total sample $9,49 \pm 1,14 \ (8-12)$ vs $7,22 \pm 0,60 \ (6.2-10.3)$ p < 0.001

glargine subgroup 9,33 \pm 1,08 (8-12) vs 7,10 \pm 0,44 (6,5-8,8) p < 0.001

detemir subgroup $9,46 \pm 1,20 \ (8-12)$ *vs* $7,14 \pm 1,44 \ (6,3-9,9)$ p < 0.001

glargine vs detemir NS at start / NS at 6 months

insulin vs GLP - 1 NS at start / U =532,5 p < 0.001 (r = -0.33) at 6 months

•Lipids parameters: TC, TG, LDL, HDL total sample, glargine sub., detemir sub. p < 0.001

glargine vs detemir NS at start / NS at 6 months

TC insulin vs GLP - 1 U=528,5 p < 0.001 at start / U=640 p < 0.05 at 6 months

TG, LDL, HDL insulin vs GLP - 1 NS at start / NS at 6 months.

•Kidney function: Creatinine, microabumin/creatinine ratio total sample, glargine sub., detemir sub. glargine vs detemir NS, insulin vs GLP – 1 NS

•Blood pressure: SBP total sample, glargine sub., detemir sub. NS, detemir vs glargine NS,

GLP - 1 vs insulin p < 0.05

DBP total sample, glargine sub., detemir sub. p < 0.05, detemir vs glargine NS,

GLP – 1 vs insulin NS •Hypoglycemia: All types: total sample, glargine sub., detemir sub. p < 0.001,

detemir vs glargine h.r.o. p < 0.05, h.n.prof. ass. NS, h.prof, ass. NS

GLP-1 vs insulin h.r.o. $p \le NS$, h.n.prof. ass. $p \le 0.05$, h.Prof. ass. $P \le 0.05$

CONCLUSIONS

- injectable treatment improves glycemic control, lipids profile and diastolic blood pressure
- injectable treatment has neutral effect at kidney function, microalbuminuria and systolic blood pressure.
- injectable treatment deteriorates hypoglycemia, without any difference at the whole number of hypos between insulin and GLP-1 treated patients but with less serious hypos at GLP-1 treated subgroup.
- injectable treatment does not change anthropometrics at the whole sample but GLP-1 improves and insulin deteriorates BW, WC and BMI and detemir has more neutral effect vs glargine.
- 5. injectable treatment deteriorates AWI, improves overview item I, has neutral effect at overview item II but further studies are necessary for definite conclusions.

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