EVALUATING ANALOG VS HUMAN INSULIN EFFICACY IN REAL LIFE. OBSERVATIONAL STUDY IN TYPE 2 ALBANIAN DIABETIC PATIENTS, PREVIOUSLY INSULIN TREATED

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OBJECTIVES

Insulin therapy is an important part of diabetes treatment.
In Albania, specialists still have to demonstrate at the institutions the treatment's efficacy and cost-effectiveness for new insulin analogs.
The aim of our study is to evaluate the efficacy of analogs vs human insulins and differences between various analog insulin, in type 2 diabetes patients, previously treated with human insulin.

METHODS

- This study is realized in real life patients.
- We retrospectively included 384 patients, previously treated ≥ 24 months with human insulins, switched to an analog insulin for ≥ 12 months.
- Treatment efficacy was evaluated by HbA1c levels, weight difference and changes in total daily dose (TDD) analog vs human.

RESULTS

- 384pts (48.17%) males. Mean age 62.19 (SD 10.12) yrs, mean diabetes duration 10.8 (SD5.35) yrs. Mean duration on analog insulin therapy was 19.1 months.
- GLargine 194 (50.5%), DEtemir 110 (28.6%), All Other Analogs (AOA) 80 (20.8%).
- Averall Mean HbA1c was 8.86(SD1.06) vs 7.51(SD1.51) on analogs p<0.01. TDD was 54.9 UI (SD20.1) vs 62.56UI (SD27.95) on analogs p<0.05, but smaller basal doses 29.28 vs 28.1UI.
- 18% of the patients on human insulin has an HbA1c <7%, vs 55.1% on analogs (p<0.01).
- Patients on analogs had a slight weight increase + 3.18 kg during the study period (p 0.55), but DE/GL 1.48 vs 4.14 kg (p<0.05).

	PATIENTS	MEAN DIABETES DURATION (yrs)	MEAN TREATMENT TIME (months)	CHANGES OF HbA1c SINCE THE INITIATION OF ANALOGS	% OF PATIENTS WITH HbA1c <7%	MEAN DAILY DOSE OF ANALOGS	WEIGHT CHANGES
Ins. GLARGINE	194	12.19	19.08	7.16/8.51 - 1.35%	56.5 vs 18.3%	30.89	+4.14kg
Ins. DETEMIR	110	10.98	19.93	6.81/8.17 -1.36%	63.4 vs 20.7%	27.95	+1.48kg
ALL OTHER ANALOGS	80	11.72	15.22	7.16/8.57 -1.38%	45.5 vs 15.2%	22.56	+2.54kg
TOTAL	384	11.7	18.88	6.96/8.31 -1.35%	55.1 vs 18.1%	29.28	+3.18kg

CONCLUSIONS

- A better metabolic control was noted with analog vs human insulins, with smaller daily doses of basal insulin and minimal weight increase.
- Even in our study Detemir group had a smaller weight gain, making it preferable for obese type 2 diabetics.

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