LIXISENATIDE EFFECTS ON LIVER FUNCTION, LIPIDS AND BLOOD PRESSURE LEVELS

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BACKGROUND

New diabetes treatments, such as Lixisenatide, improve global metabolic status beyond glycemic control.

AIM

To evaluate lixisenatide effects on liver function, lipids and blood pressure levels in type 2 diabetes and obese patients attended in endocrinology offices in Andalusia (Spain).

MATERIAL AND METHOD

This is a prospective study with a sample of 106 patients with type 2 diabetes and obesity. In an intra-subject analysis, clinical and analytical data were evaluated at baseline and after Lixisenatide treatment.

RESULTS

We studied 106 patients (51.9% women) with type 2 diabetes and obesity. Average age was 57.9 ± 1.1 years and average duration of diabetes was 11.1 ± 0,7 years. At baseline, 66% of the patients used insulin. We re-evaluated the patients 3.8 ± 0.2 months after treatment with Lixisenatide.

BP and lipids improvements were still significant in the hypertension and lipid treated subgroups (SBP, p=0.001; DBP, p=0.005; Total-Chol, p<0.001, LDL-Chol, p=0.013 and TG p=0.014), while only the decrease of SBP (p = 0.036) remained significant in the subgroup of patients without hypertension or lipid-lowering therapy.

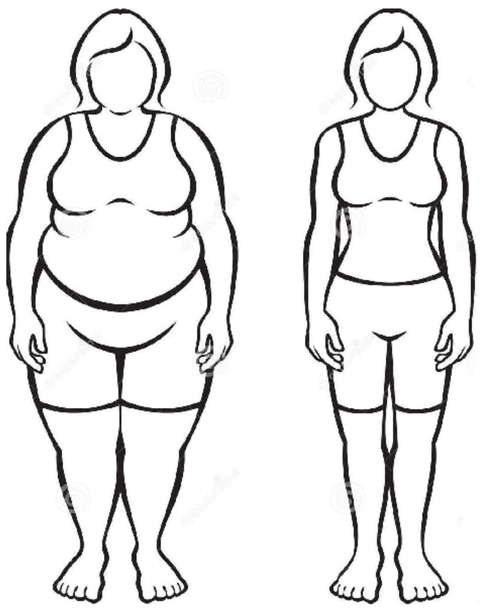

Table 1: Clinical and analytical variables pre- and post-treatment.

Variable	Baseline	Lixisenatide	P
Weight (kg)	100.3 ± 2.1	96.7 ± 2	<0.001*
BMI (kg/m2)	37.1 ± 0.7	35.9 ± 0.6	<0.001*
WC (cm)	111.1 ± 2.5	104.7 ± 2.6	0.002*
SBP (mmHg)	144.8 ± 1.8	137.8 ± 2.3	<0.001*
DBP (mmHg)	83.3 ± 1.3	80.1 ± 1.3	0.001*
HR (bpm)	83.6 ± 1.7	81 ± 1.5	0.934
Fasting glucose (mg/dL)	191 ± 6.6	154.1 ± 4.5	<0.001*
HbA1c (%)	8.7 ± 0.1	7.8 ± 0.1	<0.001*
Total-Chol (mg/dL)	181.9 ± 3.6	165.2 ± 3.3	<0.001*
LDL-Chol (mg/dL)	98.2 ± 3	88.2 ± 3.6	0.040*
HDL-Chol (mg/dL)	44.1 ± 1.2	45.7 ± 1.2	0.871
TG (mg/dL)	221.6 ± 17	185.2 ± 11.3	0.047*
GOT (UI/L)	28.5 ± 1.9	25.3 ± 1.5	0.022*
GPT (UI/L)	35.8 ± 2.9	31.5 ± 1.8	0.084
GGT (UI/L)	50.6 ± 4.8	48.3 ± 4.3	0.762
AF (mU/mL)	77.3 ± 3.7	76.4 ± 3.4	0.680
Albumin/creatinine ratio (mg/L)	20 ± 5.4	15.1 ± 3.1	0.876
Albumin/creatinine ratio (mg/g)	56.1 ± 23.9	31.2 ± 12.4	0.246
Insulin units	36.5 ± 3.5	33.6 ± 3.1	0.045*
Hypertension drugs (%)	75.5	82	<0.001*
Lipids drugs (%)	70.8	81	<0.001*

CONCLUSIONS

1. We found significant improvement of anthropometric parameters and glycemic control in terms of fasting glucose and HbA1c.

2. Significant decrease of BP, GOT and lipid profile and less insulin requirements were observed.