

MEETING ABSTRACT

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Determinants of glycemic and blood pressure control in type 2 diabetes patients: 606 outpatients diabetes cohort

Sabrina Coelli*, Ariana Aguiar Soares, Ana Marina Moreira, Camila Kümmel Duarte, Luiza Barboza de Souza, Themis Zelmanovitz, Sandra Pinho Silveiro

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Background

Diabetes mellitus (DM) complications are related to hyperglycemia, hypertension, smoking and lipids.

Objectives

The aim of this study was to evaluate the determinants of metabolic and blood pressure levels in type 2 diabetes.

Materials and methods

606 type 2 diabetes patients, outpatient Endocrine clinic, tertiary hospital, consecutively included between 2012-2014. Medical history, complete examination and laboratory evaluation performed (HbA1c, lipids, glomerular filtration rate -eGFR- and urinary albumin excretion-UAE).

Therapeutic targets defined according to American Diabetes Association: HbA1c <7% (<8% if comorbidities); blood pressure <140/90 mmHg, total cholesterol (TC) <200 mg/dL, HDL adjusted for gender and triglycerides (TG) <150 mg/dL. Approved by ethics committee (n° 140073); statistical analysis PASW 20.0.

Results

The mean age was 63±11 yrs., 62% women, 86% white, 9% smokers, body mass index (BMI) 31±5 kg/m², median DM duration 16 yrs. Median eGFR was 91 ml/min/1.73 m², 50% with UAE >14 mg/l. Diabetes treatment: 2% diet only, 67% insulin (alone or in combination with oral agents). Regarding therapeutic targets: 54% and 78% presented systolic (SBP) and diastolic blood pressure (DBP),

	Compensated glycemic control group (N=203)	Decompensated glycemic control group (N=403)	P
Age (years)	66±10	62±11	<0.001
Women	48%	69%	<0.001
Black	8%	17%	0.007
BMI (kg/m ²)	30±5	31±5	0.062
DM duration (years)	15 (2-46)	16 (2-52)	0.095
HbA1c (%)	6.6 (4.3-7.9)	9 (7-15.2)	-
UAE (mg/l)	14.3 (2.3-3402)	13.7 (2.3-5988)	0.704
CKDEPI (ml/min/1.73 m ²)	74 (7-160)	98 (7-157)	<0.001
TG (mg/dl)	132 (28-1394)	151 (37-2742)	0.013
TC (mg/dl)	157 (64-516)	168 (45-350)	<0.001
HDL (mg/dl)	39 (24-94)	40 (19-103)	0.607
SBP (mmHg)	130 (80-210)	130 (90-230)	0.723
DBP (mmHg)	80 (50-110)	80 (50-130)	0.875
Insulin	52%	77%	<0.001

Figure 1 Comparisons between compensated and decompensated control groups.

respectively, within the recommendations. Median HbA1c was 8% (4.3-15.2%), 36% were below the target. TC, TG and HDL were at the target in, respectively, 79%, 54% e 29% of the cases. The table shows the comparisons between compensated and decompensated glycemc control groups (Figure 1). Comparisons between gender did not show differences between age ($P=0.61$), DM duration ($P=0.488$) or blood pressure ($P=0.117$). However, women had higher BMI ($P<0.001$), worse lipid levels (TG: $P=0.003$; TC: $P<0.001$) and glycemc control ($P<0.001$).

Conclusion

Two thirds of type 2 diabetes outpatients were above the recommended glycemc targets; obesity in women and black skin color were the main determinants for these findings.

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