

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/m<sup>2</sup>, median DM duration 16 yrs. Median eGFR was 91 ml/min/1.73 m<sup>2</sup>, 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 <sup>2</sup> )	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 <sup>2</sup> )	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 glycemetic 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 glycemetic control ( $P<0.001$ ).

## Conclusion

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

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