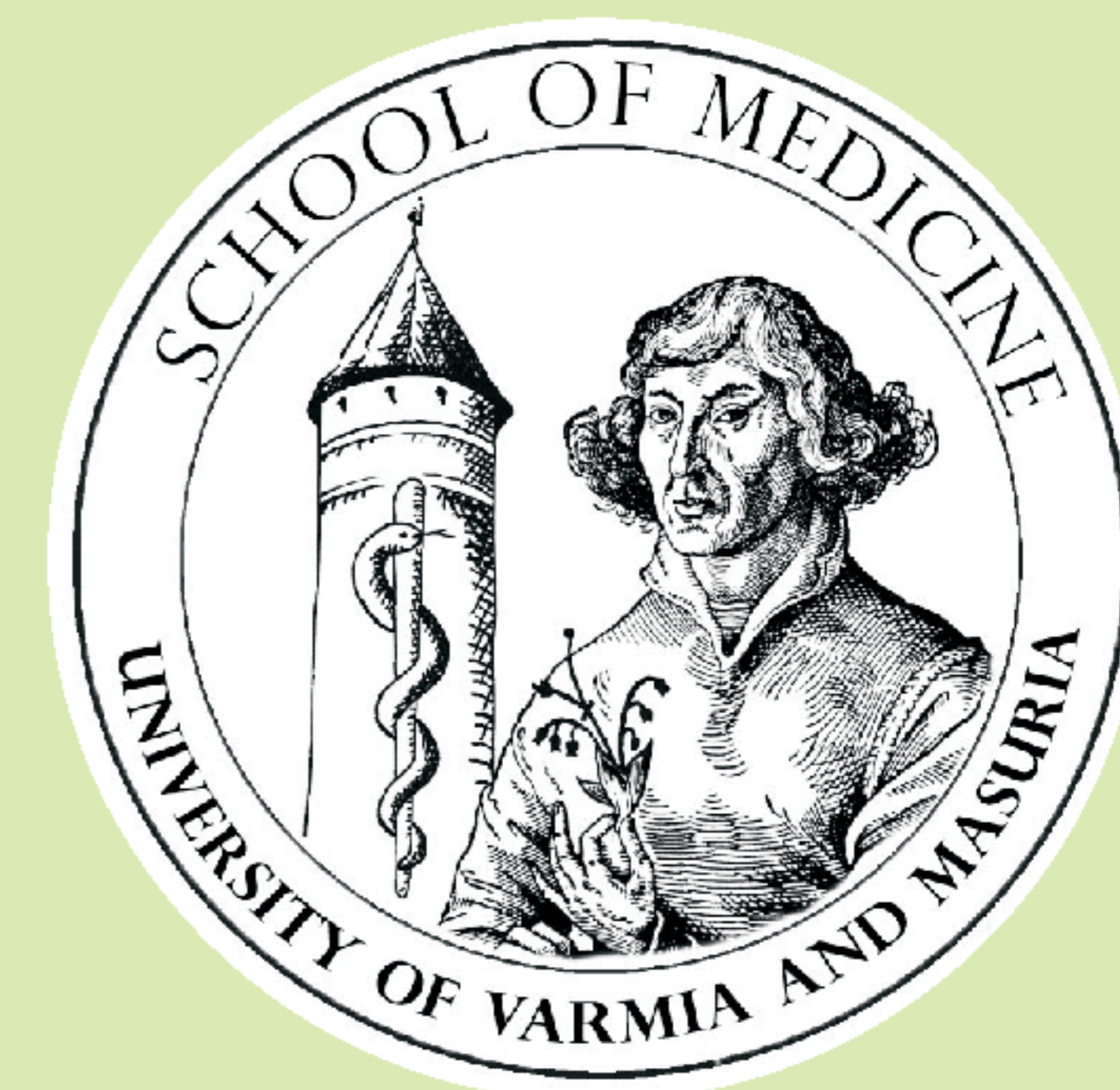


The antropometric and metabolic parametres in women with previous gestational diabetes mellitus during a 30-month observation

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INTRODUCTION

The increasing number of diagnosed gestational diabetes mellitus (GDM) all over the world is connected with higher risk of developing T2DM in the future.

AIM

The aim of the study was to assess antropometric and metabolic parametres in women with previous GDM during a 30-month observation.

DESIGN

Our prospective study cohort consisted of 367 women with GDM diagnosed according to WHO criteria. Oral glucose tolerance test (OGTT) was performed during 6-10 weeks and 12, 18, 24, 30 months after delivery. On every 6th month between 12th and 30th month after delivery we estimated: BMI, abdominal circumference, blood pressure and the lipid profile, fasting plasma glucose and insulin levels were assessed, from which the HOMA-IR was calculated. Yearly OGTT was performed.

RESULTS

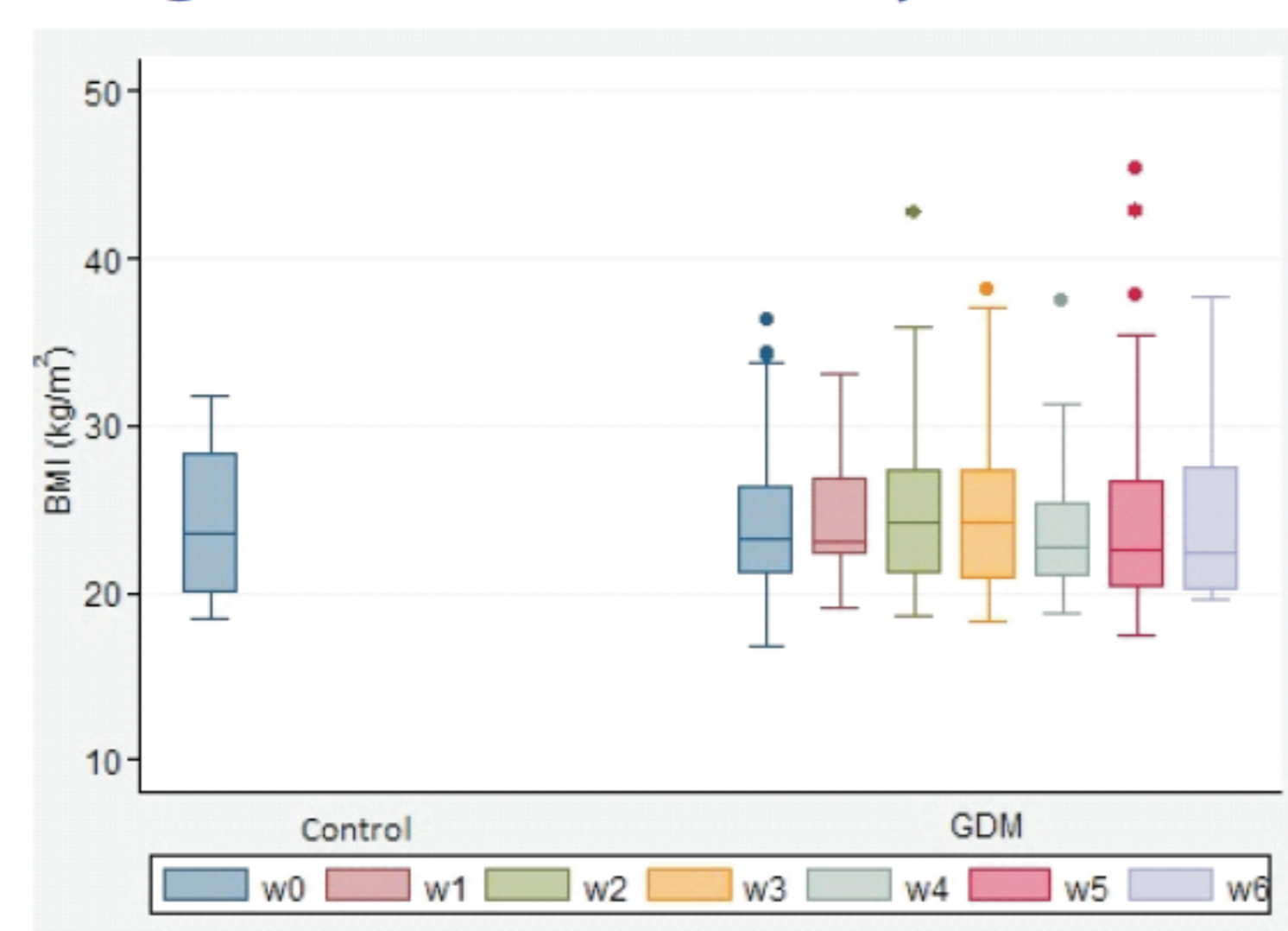
Characteristic of the study group

Parameters	Study groups		p
	GDM N=367	Control group N= 41	
Mother's age \pm SD	30.72 \pm 4.90	30.80 \pm 4.12	0.97
Primagravida (N%)	166 (45.36)	17(40.48)	-
Pregnancy week – women were included to the study \pm SD	25.23 \pm 4.51	24.39 \pm 1.72	0.72
Pregestational BMI \pm SD	23.71 \pm 4.18	23.20 \pm 4.80	0.50

Fasting plasma glucose after delivery in GDM group

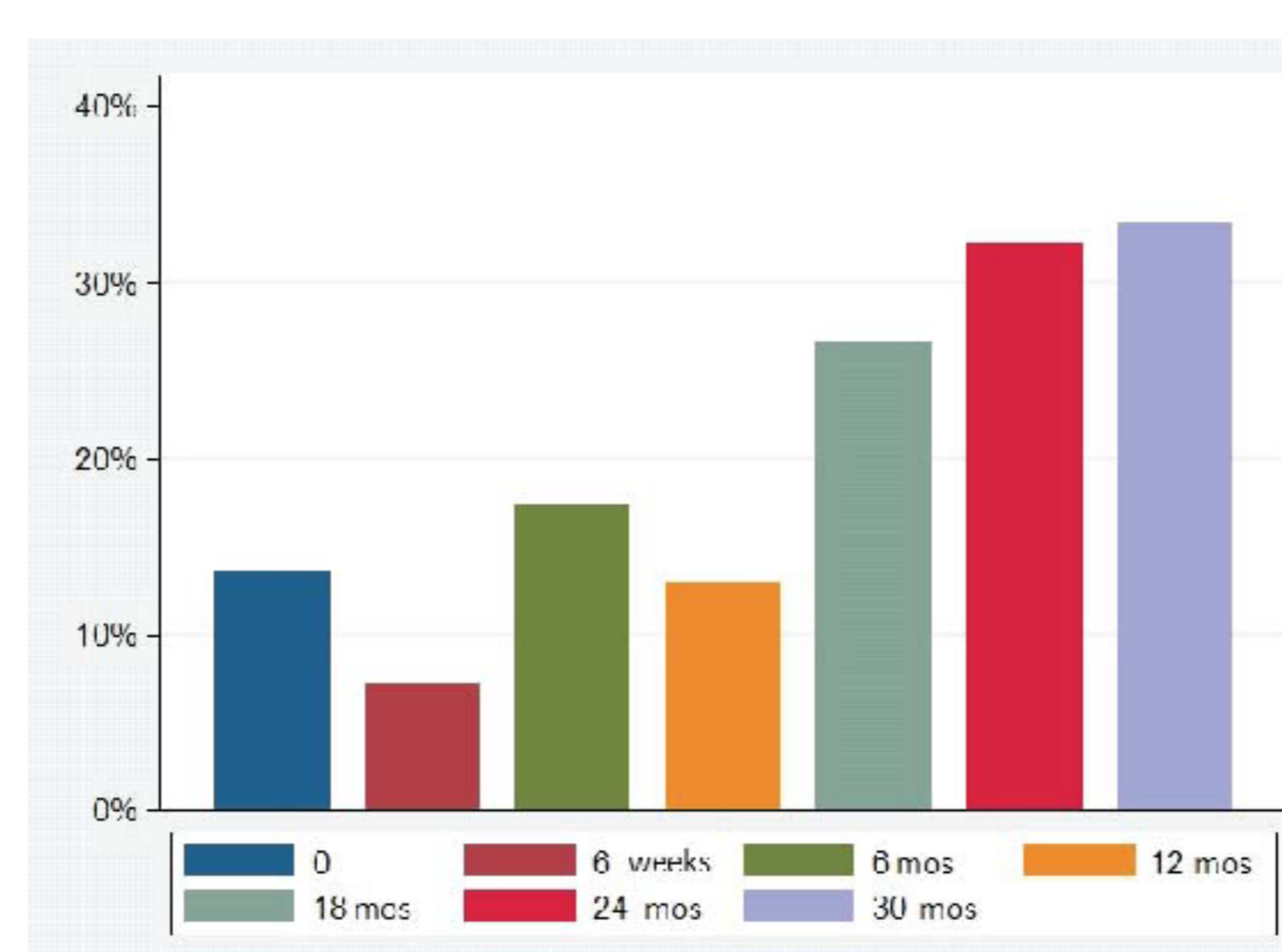
FPG	N	min	max	mean	SD	median	Q1	Q3
6 weeks after delivery	139.00	63.00	110.00	88.62	7.36	89.00	84.00	93.00
6 months after delivery	63.00	59.00	114.00	90.42	10.49	90.00	86.00	97.00
12 months after delivery	54.00	74.00	114.00	90.98	8.85	91.00	84.00	96.00
24 months after delivery	31.00	80.00	108.00	95.77	6.98	95.00	90.00	102.00

Pregestational BMI in control group and GDM comparing to BMI after delivery



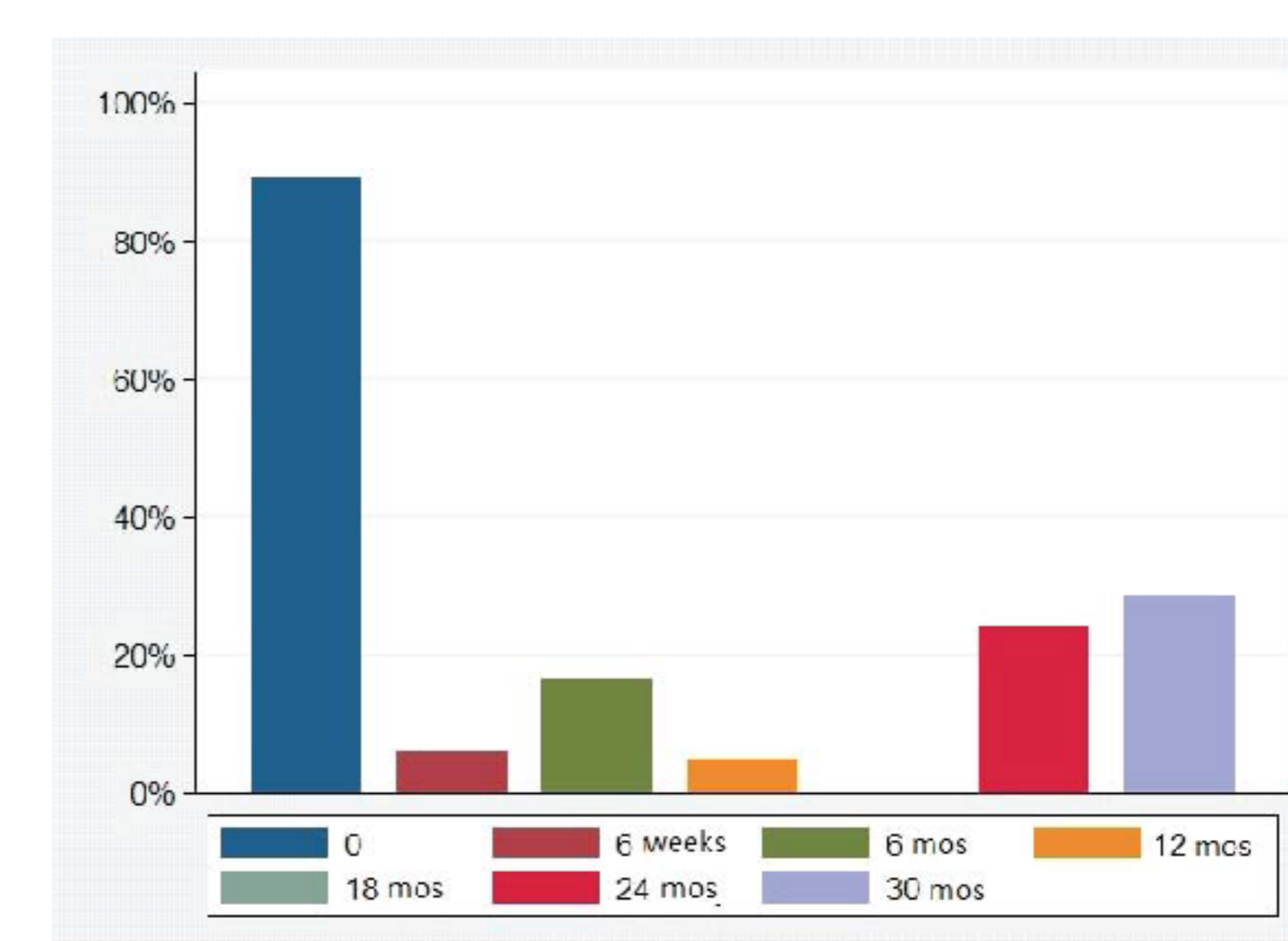
w0-pregestational BMI; w1-6 weeks after delivery; w2-6 months after delivery; w3-12 months after delivery; w4-18 months after delivery; w5-24 months after delivery; w6-30 months after delivery

IFG in GDM group after delivery



FPG > 100mg/dL

IGT in GDM group after delivery



Glucose 2h OGTT > 140mg/dL

Waist circumference in women with GDM at 6, 12, 18, 24 i 30 months after delivery

Parameters	N	min	max	mean	SD	median	Q1
Waist circumference 6 months after delivery	49.00	66.00	120.00	83.28	10.89	83.00	75.00
Waist circumference 12 months after delivery	58.00	68.00	105.00	82.74	9.24	81.75	76.00
Waist circumference 18 months after delivery	27.00	67.00	113.00	81.24	10.20	82.00	74.00
Waist circumference 24 months after delivery	38.00	66.00	127.00	81.87	13.64	79.00	72.00
Waist circumference 30 months after delivery	11.00	68.00	110.00	81.64	12.53	78.00	74.00

HOMA-IR in GDM group after delivery

HOMA-IR	GDM N	min	max	mean	SD	median	Q1	Q3
6 months after delivery	50.00	0.60	5.48	1.81	1.01	1.51	1.10	2.27
12 months after delivery	52.00	0.15	5.70	1.85	1.07	1.59	1.08	2.26
18 months after delivery	26.00	0.36	5.01	1.70	1.11	1.49	0.81	2.19
24 months after delivery	30.00	0.55	15.47	2.54	2.71	1.80	1.33	2.44
30 months after delivery	12.00	0.84	5.39	2.26	1.15	2.09	1.57	2.58

Other parametres after delivery

- Systolic and diastolic blood pressure were within normal population limits.
- Lipids profile:
 - Total cholesterol 201-172.5mg/dL
 - HDL 67-63 mg/dL
 - LDL 112.6-96.2 mg/dL
 - Triglycerides 78-85.5mg/dL
- We found no diabetes mellitus.

CONCLUSIONS

Insulin resistance is high and growing in women with previous GDM after delivery. The number of women with prediabetes status after delivery becomes an epidemiologic challenge. We also observed that women with GDM are very often lost to the follow up.

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