

INFLUENCE OF OBESITY AND CARBOHYDRATE METABOLISM DISORDERS IN GLP-1 LEVELS IN WOMEN WITH HISTORY OF GESTATIONAL DIABETES MELLITUS.

Maraver Selfa, S; Picón César, M. J; Molina Vega, M; Mancha Doblas, I; Tinahones Madueño, F.

Department of Endocrinology and Nutrition. Virgen de la Victoria Hospital, Malaga, Spain.



INTRODUCTION AND OBJETIVE

There is a reduction of the incretin effect in patients with type 2 diabetes secondary to altered secretion of incretin hormones and/or failed of its action.

To study the GLP-1 secretion pattern after an oral glucose tolerance test (OGTT) in postpartum reassessment of women with previous GDM.

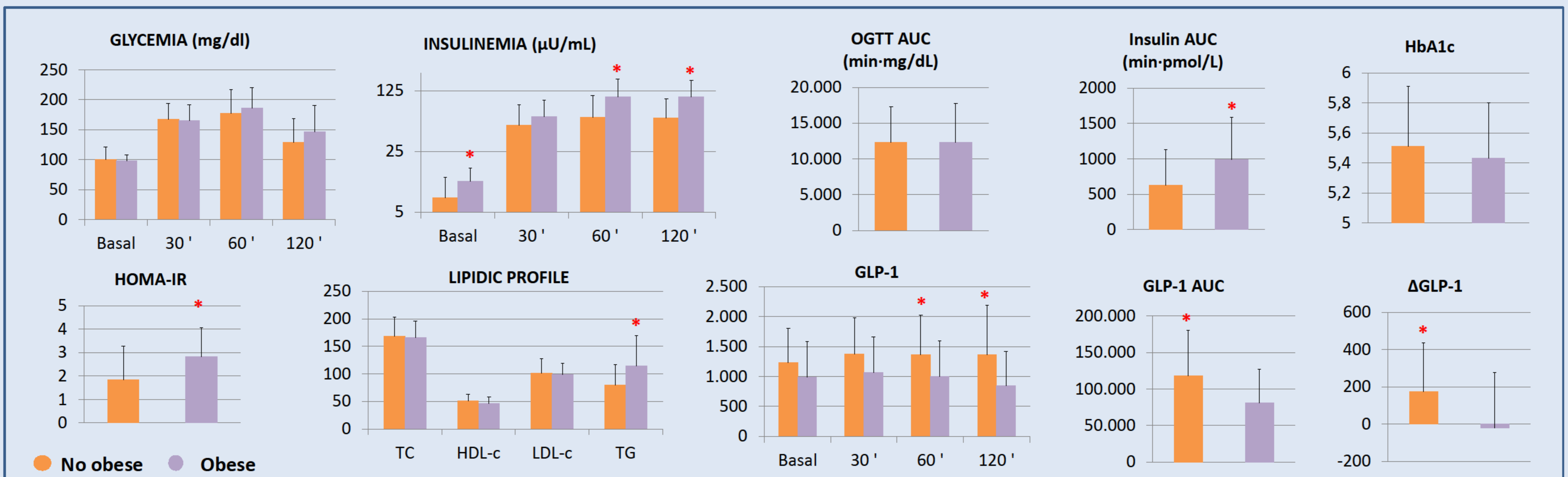
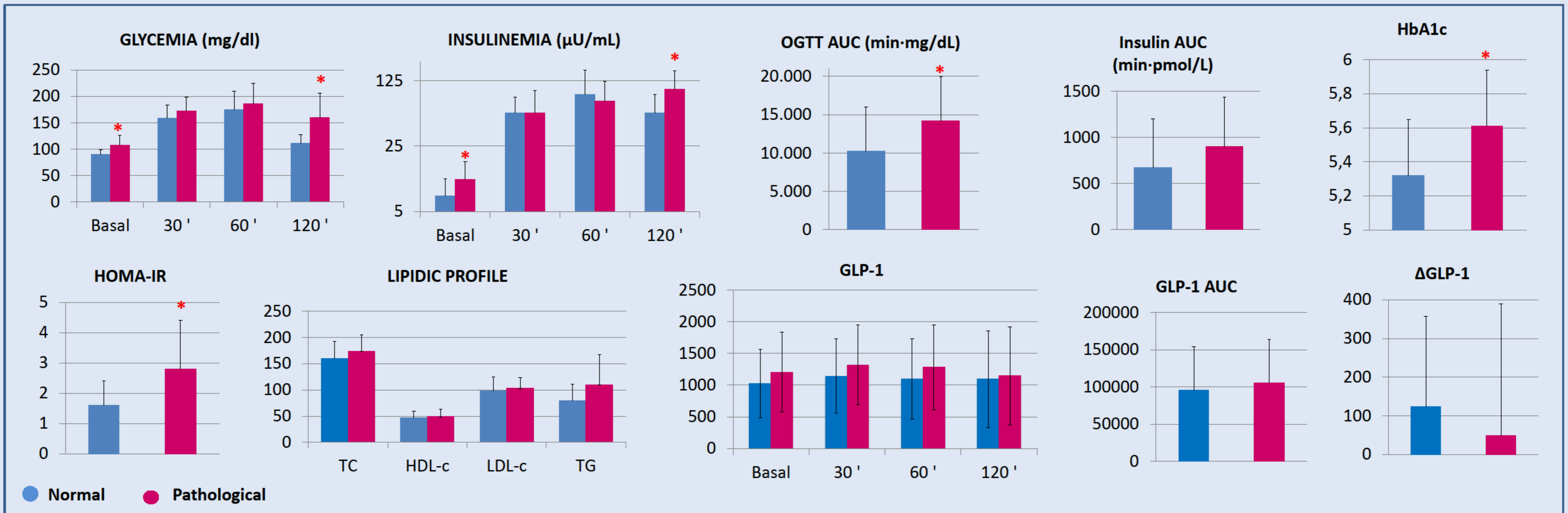
MATERIAL AND METHODS

Prospective epidemiological study of 48 women with a history of GDM. We evaluated age, history of GDM or macrosomia, family history of diabetes, insulin therapy use, birth weight and type of delivery. 13±1 months after childbirth, we reassessed clinical-analytical characteristics and performed a 75 g OGTT. We measured glucose, insulin and GLP-1 levels (basal-30-60-120'). Classification of patients was based on OGTT: normal vs prediabetic/diabetic and based on BMI: obese (IMC≥30 kg/m²) vs non-obese. Differences between groups were analyzed using Mann-Whitney and Chi Square tests.

RESULTS

	NORMAL OGTT (n=23)	PATHOLOGICAL OGTT (n=25)	p	NON-OBESE (n=26)	OBESE (n=22)	p
Before pregnancy						
History of GDM (%)	50	63,2	0,767	50	66,6	0,217
History of macrosomia (%)	11,1	5,3	0,575	15	0	0,115
Family history of diabetes (%)	60,9	52	0,536	57,4	54,5	0,827
BMI (kg/m ²)	29,0 ± 6,4	30,4 ± 7,0	0,431	25,00 ± 2,96	34,96 ± 6,61	0,000*
During pregnancy						
Insulin therapy use (%)	60,9	88,0	0,030*	73,1	77,3	0,738
Macrosomia (%)	13,6	16,3	0,775	12	19	0,507
Birth weight (kg)	3,2 ± 0,5	3,3 ± 0,6	0,554	3,22 ± 0,45	3,26 ± 0,65	0,828
Caesarean (%)	34,8	12,0	0,061	19,2	27,3	0,509

	NORMAL OGTT (n=23)	PATHOLOGICAL OGTT (n=25)	p	NON-OBESE (n=26)	OBESE (n=22)	p
A year after delivery						
Age (years)	34,04 ± 4,9	35,96 ± 4,7	0,162	34,94 ± 5,57	35,14 ± 4,05	0,930
BMI (kg/m ²)	28,6 ± 6,1	30,8 ± 6,8	0,183	25,18 ± 2,56	35,17 ± 5,61	0,000*
Waist (cm)	92,13 ± 15,8	96,32 ± 13,8	0,201	84,69 ± 7,34	105,68 ± 13,28	0,000*
Δ BMI (kg/m ²)	0,05 ± 1,9	0,7 ± 2,8	0,41	0,47 ± 2,03	0,30 ± 2,87	0,991
SBP (mmHg)	116,5 ± 13,5	119,0 ± 11,4	0,328	114,62 ± 10,82	122,11 ± 13,28	0,093
DBP (mmHg)	74,5 ± 9,2	79,74 ± 9,36	0,117	74,96 ± 8,69	80,32 ± 10,00	0,123



CONCLUSIONS

- Women with a history of GDM and prediabetes/diabetes in postpartum reassessment don't differ in GLP-1 secretion after OGTT of healthy patients.
- However, obese patients have lower incretinic response after OGTT compared with non-obese.