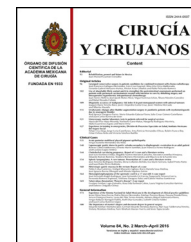




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ORIGINAL ARTICLE

Maternal metabolic diseases related to pre-pregnancy overweight and obesity in Mexican women with high risk pregnancy[☆]

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KEYWORDS

High risk pregnancy;
Pre-pregnancy
obesity;
Gestational diabetes;
Pregnancy
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Abstract

Introduction: Pre-pregnancy obesity has been proposed as a risk factor related to gestational diabetes and hypertensive disorders during pregnancy.

Objectives: Identify pregnancy related diseases associated with pre-pregnancy obesity as a risk factor in a high risk pregnancy patient population.

Methods: 600 patients whose pre-pregnancy obesity had been assessed as a high risk factor were included in the study. The means, standard deviation, median, interquartile intervals, Pearson and Spearman correlation and logistic regression to estimate risk with the odds ratio and 95% confidence intervals were calculated.

Results: The mean pre-pregnancy body mass index was 29.59 ± 6.42 kg/m². The mean for recommended pregnancy weight gain was 2.31 ± 1.03 kg, but the mean of real weight gain was 8.91 ± 6.84 kg. A significant correlation between pre-pregnancy obesity and family history of

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diabetes mellitus ($p=0.000$), systemic hypertension ($p=0.003$), cardiac diseases ($p=0.000$), dyslipidemia ($p=0.000$) and obesity ($p=0.000$) was identified. Pre-pregnancy obesity was identified as a risk factor for the development of gestational diabetes (OR: 1.95; 95% CI: 1.39–2.76; $p=0.000$) in this kind of patient.

Discussion and conclusion: 75% of high risk pregnancy women in a high specialty hospital in West Mexico are overweight or obese when they become pregnant. These are risk factors in the development of gestational diabetes.

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PALABRAS CLAVE

Embarazo de alto riesgo;
Obesidad pregestacional;
Diabetes gestacional;
Trastornos hipertensivos del embarazo

Enfermedades metabólicas maternas asociadas a sobrepeso y obesidad pregestacional en mujeres mexicanas que cursan con embarazo de alto riesgo

Resumen

Introducción: La obesidad pregestacional se ha propuesto como factor de riesgo relacionado con la presencia de diabetes y trastornos hipertensivos durante el embarazo.

Objetivos: Identificar las patologías asociadas con la obesidad pregestacional como factor de riesgo en una población de pacientes que cursan con embarazo del alto riesgo.

Métodos: Se estudió a 600 pacientes en quienes se evaluó la presencia de obesidad pregestacional como factor de riesgo. Se calcularon promedios, desviación estándar, mediana, intervalos intercuartiles, correlación de Pearson, Spearman y regresión logística para estimación del riesgo a través de odds ratio (OR) e intervalos de confianza (IC) del 95%.

Resultados: El índice de masa corporal (IMC) pregestacional fue $29.59 \pm 6.42 \text{ kg/m}^2$. La ganancia ponderal recomendada acorde al IMC pregestacional fue en promedio de $2.31 \pm 1.03 \text{ kg}$, mientras el peso efectivamente ganado por el grupo de mujeres fue en promedio de $8.91 \pm 6.84 \text{ kg}$. Se identificó una correlación estadísticamente significativa entre la presencia de obesidad con el antecedente heredofamiliar de diabetes mellitus ($p=0.000$), hipertensión arterial sistémica ($p=0.003$), cardiopatía ($p=0.000$), dislipidemia ($p=0.000$) y obesidad ($p=0.000$); se identificó la obesidad pregestacional como factor de riesgo para el desarrollo de diabetes gestacional (OR: 1.95; IC del 95%: 1.39 a 2.76; $p=0.000$) en esta población de pacientes.

Discusión y conclusiones: Un 75% de las mujeres que cursan con embarazo de alto riesgo en un hospital de alta especialidad en el occidente de México llegan al embarazo con sobrepeso u obesidad pregestacional y estas entidades son factores de riesgo para el desarrollo de diabetes gestacional.

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Introduction

The worldwide prevalence of overweight and obesity has reached epidemic proportions and also includes women of reproductive ages,¹ who are a vulnerable group and for whom this phenomenon has become more common.²

According to the World Health Organisation,³ the percentage of the population with obesity has doubled since 1980. In 2008, over 1400 million adults over 20 were overweight or obese, which amounts to 35% of the worldwide population being overweight and 11% being obese and of these, over 300 million are women of childbearing age.

At present, 65% of the worldwide population is overweight and the presence of overweight or obesity has been found to be related to a higher number of deaths than low weight. 42 million children under 5 are obese. Obesity is a potentially predictable risk factor.⁴

Up until 2008, the year in which comparative data became available, 72.3% of the population in the United States of American (U.S.A.) was overweight and 32.2% was obese. In Brazil, the combined prevalence of overweight-obesity was 42.8% and 16.1% of the population was obese (national 2006–2007 data). In Mexico, according to the 2006 National Survey of Health and Nutrition (ENSANUT), the prevalence of overweight-obesity was 66.7%, 42.5% of whom were overweight and 24.2% were obese. This ranked Mexico as the country with the second highest rate of obesity in the continent of America.⁵

According to 2012 ENSANUT data, from 1999 an epidemic of obesity in adult women was detected. In 2006, overweight and obesity increased its percentages in all age groups, regions and socio-economic groups in Mexico. In 2012, the combined prevalence of overweight and obesity in teenage women was 35.8%, of whom 14.5% were reported

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