

PRECLAMPSIA AMONG HISPANIC WOMEN IN A DETROIT HEALTH SYSTEM

Objective: We wished to estimate the incidence of preeclampsia among a group of Hispanic women in the greater Detroit metropolitan area.

Participants: We reviewed delivery records of 559 Hispanic women from a Detroit hospital and prenatal records of 134 Hispanic women who received care from an affiliated federally qualified health center in southwest Detroit.

Design: A retrospective chart review was conducted. The physician's diagnosis was used to study hospital patients. The health center patients were diagnosed on the basis of criteria established in the National High Blood Pressure Education Working Group Report.

Results: In 1998, Hispanic women who delivered at the study hospital had an incidence of preeclampsia or pregnancy-induced hypertension (PIH) of 1.3% (7/559), compared to non-Hispanics 5.3% (118/2241) ($\chi^2_{(1)}=10.35$, $P<.05$). The relative risk was .24. From health center prenatal records, the incidence of preeclampsia/PIH among the 134 patients was 3.7%. The difference in the incidence of preeclampsia/PIH between delivery records at the hospital (1.3%) and health center prenatal records (3.7%) was not statistically significant ($\chi^2_{(1)}=1.6$, $P>.10$).

Conclusion: Among women giving birth at a Detroit hospital, Hispanic women had a lower risk of developing preeclampsia or PIH compared to non-Hispanic women. (*Ethn Dis.* 2007;17:118-121)

Key Words: Preeclampsia, Hispanic Americans, Pregnancy Induced Hypertension, Incidence

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INTRODUCTION

Health disparities persist among ethnic groups in the United States. Providing care for the growing number of Hispanic women is a challenge to healthcare providers because validated study data that support the rationale for the best care are sporadic at best. For example, Hispanic pregnant women in the United States are reported to be at high risk for various illnesses such as gestational diabetes or obesity,¹ while they are reported to be low risk for preeclampsia.^{2,3} Since Hispanic populations are heterogeneous regionally, and the state of familiarities with English language and neighborhood varies, prevalences of health conditions need to be carefully determined.

Most Hispanic patients who deliver at the hospital we studied are first-generation Mexican immigrants, and some are migrant workers. More specifically, the residents in this community are 90% Mexican, 5% Puerto Rican, and 5% other Hispanic.⁴ Of the Mexican Hispanics, 80% have recently emigrated primarily from midwestern Mexico. Most of these women speak little or no English. According to McGlade,⁵ Mexican-born individuals, as a group among diversified Spanish-speaking populations, possess the lowest incidence of low-birthweight infants in the United States, of which preeclampsia and hypertension are a leading cause.⁶

Preeclampsia is a multisystem disorder of pregnancy in which the normal hemodynamic response to pregnancy is compromised. It is manifested during the latter half of gestation and is diagnosed by the presence of hypertension, proteinuria, and edema in pregnant women previously without such findings. The

physiologic manifestations involve a generalized increase in vasoconstriction and vasoreactivity, decreased organ perfusion, and platelet activation. The underlying cause of preeclampsia is unknown, and diagnosis is often inconsistent,⁷ which further complicates the issue. Geller⁷ et al examined the accuracy of the diagnoses on discharge records for mild and severe preeclampsia and eclampsia by using a dataset from a tertiary medical care system in the Midwest that is somewhat similar to our hospital. They reported that less than half (45.3%) of diagnoses made for mild preeclampsia met the criteria set by the American College of Obstetricians and Gynecologists (ACOG).⁸ Among those whose disease was recorded incorrectly as mild preeclampsia, 23.4% had gestational hypertension. Part of this low sensitivity of diagnosis, however, may be attributable to incomplete medical records.

A few reasons support the hypothesis that Hispanics may have a higher incidence of preeclampsia than currently diagnosed. Obesity is a risk factor for preeclampsia,⁹ and Hispanics make up 63% of obese pregnant women. Hispanics have a higher risk for gestational diabetes,^{6,10} and a high co-morbidity between gestational diabetes and preeclampsia is reported in multiple studies.¹⁰ But existing studies demonstrate a wide range of the preeclampsia incidence. A paucity of data exists as to the incidence of preeclampsia among Hispanic women in the United States. In order to provide data to fill in this void, we examined the incidence of preeclampsia among the Hispanic population from two different clinically available data sources: 1) labor and delivery logs in a hospital and 2) prenatal records in a clinic.