

Appropriate prenatal care system: the best way to prevent preeclampsia in Andean countries

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SUMMARY

The main cause of maternal mortality in Colombia is preeclampsia; even though it is a major public health problem its etiology and physiopathology remain unknown. However it is believed that endothelial dysfunction plays a central role in the development of this disease. Many clinical trials have been carried out to demonstrate the effect of certain interventions to prevent preeclampsia and improve pregnancy outcomes. Our hypothesis is that the reduction of preeclampsia risk could be achieved through an appropriate health system that would provide an opportune and effective prenatal care to pregnant women allowing early diagnosis and treatment of frequent nutritional and health related problems.

Keywords: Pregnancy; Preeclampsia; Prevention; Prenatal care; Endothelial dysfunction; Public health.

Control prenatal apropiado: la mejor manera de prevenir la pre-eclampsia en los países andinos

RESUMEN

La primera causa de mortalidad materna en Colombia es la pre-eclampsia; pero aunque es un problema de salud pública su etiología y fisiopatología no se han esclarecido completamente. Sin embargo, se cree que la disfunción endotelial juega un papel importante en el desarrollo de la enfermedad. Se han llevado a cabo múltiples ensayos clínicos para demostrar el efecto de ciertas intervenciones a fin de prevenir la pre-eclampsia y mejorar los resultados de estos embarazos. Nuestra hipótesis consiste en que la reducción del riesgo de desarrollar pre-eclampsia se puede obtener mediante un sistema de salud apropiado que brinde a la madre un control prenatal efectivo y oportuno y permita el diagnóstico temprano y el tratamiento de sus problemas de salud y nutricionales.

Palabras clave: Embarazo; Pre-eclampsia; Prevención; Control prenatal; Disfunción endotelial; Salud pública.

The main cause of maternal mortality in Colombia is preeclampsia (PE). It causes 42% of the maternal demises and increases the perinatal mortality by five fold. It is even a bigger problem if it is considered that maternal mortality in Colombia is ten times higher than in United States of America¹. In spite of its impact on public health PE's aetiology and physiopathology remain unknown. In this paper it is postulated that PE is a disorder due to multiple causes, and that nutritional, socioeconomic, genetic and environmental factors might lead to an endothelial function alteration characterized by a modification in the production of vasoactive

substances, especially nitric oxide (NO), prostacyclin, and pro oxidizing free radicals². Furthermore, this article proposes that the weight of these risks factors varies depending on the level of socioeconomic development reached by a given society³.

Relevant epidemiological observations to prevent PE. PE complicates about 6% to 8% of pregnancies; however, noticeable regional differences exist in its incidence due to the greater presence of certain risk factors in developing societies⁴. Nutritional factors like the low intake of calcium¹, antioxidizing vitamins⁵ and essential fatty acids⁶ are considered elements

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