CorSalud 2012 Oct-Dec;4(4):311-313

CorSalud

Cuban Society of Cardiology

Letter to the Editor

Cardiocentro Ernesto Che Guevara Santa Clara Cuba

HEART DISEASE AND PREGNANCY, FROM DUTY TO SCIENCE

CARDIOPATÍA Y EMBARAZO, DEL DEBER A LA CIENCIA

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Key words: Pregnancy, Cardiovascular diseases, Maternal mortality, Morbidity
Palabras clave: Embarazo, Enfermedades cardiovasculares, Mortalidad materna, Morbilidad

Received: August 1, 2012
Accepted for publication: September 3, 2012

Este artículo también está disponible en español

To the Editor:

We read with particular interest the article "Incidence of heart disease during pregnancy in Villa Clara province" written by Ocenes Reinoso et al[1], which is the continuation of a rigorous work started by our teachers in 1988, when the Heart Disease and Pregnancy Unit was created in the Mariana Grajales Obstetrics and Gynecology Hospital, aiming to standardize medical treatments and behavior and facilitate a comprehensive assessment in which obstetricians and cardiologists would join. Since then, this has been done with exemplary professionalism, taking successfully the sacred step from duty to science. However, we have decided to focus on the following statements of the authors, "...the use of the scientific method that leads to the achievement of an excellent health care", to make a necessary reflection that may enable us to be more conservative with the results obtained.

It is known that heart disease is the leading non-obstetric cause of death during pregnancy, and that our province has annually reported between 1 and 5 maternal deaths in the last decade, except for the years 2004 and 2010 when there was none. However, it is evident that after the work started by Ocenes Reinoso et al there has been a marked increase in heart disease incidence during pregnancy in Villa Clara (1.72%), if we consider five-year studies conducted in the early nineties, first by Andino Hernandez, who reported 0.7% and then by Cairo Gonzalez et al, 0.97%[2,3].

This not only represents an increase of slightly more than twice the incidence in this group of patients over two decades, but it also proportionally causes a significant increase in extremely severe obstetric morbidity, an indicator of current growing interest since it is asso-

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ciated with maternal death, and is a valid alternative as a measure to assess maternal care. The above issues should be a concern for health managers in our province if infant-maternal indicators are to improve[4,5].

But what is extremely severe obstetric morbidity? According to the definition provided by the Latin American Federation of Obstetrics and Gynecology (FLASOG, for its acronym in Spanish), it is a serious complication that occurs during pregnancy, childbirth and postpartum, threatening the woman's life or requiring immediate attention to avoid death[4].

How to identify extremely severe obstetric morbidity in pregnant women with heart disease?

Undoubtedly, this is a very special group of pregnant women due to the risk of their heart disease, but this study and others conducted in our country give us key risk factors to identify it, such as: development of complications, extreme ages, hypertension, sepsis and parity[1,4-7].

The main causes of extremely severe obstetric morbidity in Cuba are, in order of frequency: postpartum hemorrhage, hypertensive disorders, thromboembolic disease and sepsis. In the study of maternal mortality in Villa Clara province 2001-2010[2], the main causes of maternal deaths were postpartum hemorrhage and cardiovascular disease, with 6 in both cases, i.e. 12 out of 22, for a 54, 4%.

Considering these data and looking at the results of the work of Ocenes Reinoso et al[1], a group of pregnant women with a particularly high risk can be identified. Then one might be concerned about the complications encountered by these authors, as they are not specified in table number five. In contrast, other national works on this subject have clarified this fact, which if known, would have enriched the discussion of this article[2,4-7].

Two other important elements are reflected in the summary of this work. The first and very positive one is the low rate of caesarean sections in the study population, as 82.7% of pregnant women had vaginal delivery, especially when some series published up to 40% of caesarean sections in this group of patients[1].

There is evidence that caesarean section is a risk factor for infection, and its practice has dramatically increased in Cuba in recent years. It is in itself a direct and proportional indicator of maternal morbidity and mortality[2,4,5].

Extremely severe obstetric morbidity occurs 1.7 times more in cesarean section than in vaginal delivery and if it decreases, it can produce a reduction of 60% of maternal morbidity, which was likely to happen in this study given the low rate of cesareans found. It must be emphasized that this is one of the indicators that supports the quality of work done by the multidisciplinary team caring for pregnant women with heart disease in Villa Clara.

The second element is gestational age at delivery, only 77.4% of pregnant women gave birth between 37 and 42 weeks, so that a significant number of pregnant women, 63 out the total 283 in the study, were preterm or post-term births, figures slightly higher than those reported in the literature, which continues to be a concern[1].

This indicator is determined by the severity of the heart disease and the limitation degree it causes during pregnancy, which exponentially increase extremely severe obstetric morbidity if it could be correlated with the complications encountered in the study[4,5,8,9].

Maternal mortality rate in Cuba has shown little variation over the last decade. In 2011 it was 40.6 per 100,000 births, and despite being the lowest in the last four years it is far from making us feel satisfied[10].

We agree with Professor Dr. Evelio Cabezas, Head of the National Group of Gynecology and Obstetrics, when he stresses pregnancy planning, and we as cardiologists have to implement preventive medicine to those patients with heart disease who want to become pregnant. Therefore we would like to remember in this manuscript the "five golden rules" for this very special group of patients, that will allow us to recommend or not pregnancy, or its termination in case the patient is already pregnant:

1. Type of heart disease.
2. If heart disease is treated or not, and if correction is complete or palliative.
3. The outcome of surgery.
4. Functional class according to the New York Heart Association (NYHA).
5. Possibility of transmitting heart disease to the child.

The care of pregnant women with heart disease is a major challenge for our health system, as joint efforts and a great human will are required as we travel the road of science. We appreciate studies like these in order to establish appropriate policies to ensure improved health outcomes.

We would like to make public our appreciation to Professor Dr. Evelio Cabezas for his insightful comments in preparing this manuscript.

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