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MULTIPLE PREGNANCIES

Эгамкулов З. Т.
Кандидат медицинских наук
г. Самарканд, Узбекистан

Abstract:

: Double pregnancies account for 2 to 4% of total births, with a prevalence of 0.9 to 2.4% in Brazil. It is associated with worse maternal and perinatal outcomes. Many conditions, such as severe maternal morbidity (SMM) (potentially life-threatening conditions and maternal near death) and neonatal near death (NNM), have not yet been adequately investigated in the literature. associated with twin pregnancies is probably due to its relatively low prevalence and the need for larger population studies. Thus, the use of the entire population and databases of large, multicenter studies can yield unprecedented results. Because it is a rare condition, it is easier to assess with vital statistics from electronic birth registries. Twin pregnancies have consistently been associated with SMM, maternal failure (MNM), and perinatal morbidity, with even worse outcomes for the second twin, possibly due to some characteristics of delivery, including the safety and availability of appropriate obstetric care for women at high risk of perinatal complications.

Keywords

Multiple pregnancy, maternal morbidity, perinatal morbidity, high-risk pregnancy.

Introduction

Twin pregnancies account for 2 to 4% of total births.[1,2,3,4,5,6] Rates of spontaneous twin pregnancies vary around the world. Prevalence rates range from fewer than 8 twin pregnancies per 1000 births in East, South-East and South Asia, India and Oceania, 9–16 cases per 1000 births in the United States and Latin America, to 17 or more cases per 1000 births in Africa. [7] The highest rates of twin pregnancies are found in Nigeria and the lowest in Japan. [8] This difference is mainly due to dizygotic twin pregnancies, as the prevalence of monozygotic pregnancies is virtually constant at 3.5 to 4 cases per 1000 births. [7,8] Rates of twin pregnancies have increased over the past 30 years, particularly in high- or middle-income countries, due to the mother's later age to conceive, reduced fertility, and increased use of assisted reproductive technologies. [2,3,4] It is well known that twin pregnancies are associated with higher maternal and perinatal risks. The mother's adaptation to twin pregnancy leads to several complications. Maternal mortality (MS) associated with twin pregnancies is 2.5 times higher than in singleton pregnancies. [4] Perinatal mortality rates in twins are two to three times higher than in newborns from singleton pregnancies, mainly due to preterm birth, fetal growth retardation (FGR), low birth weight (LBW), and intrapartum anoxia. [9,10]

Maternal morbidity and mortality associated with twin pregnancies have not been adequately discussed in the literature because there is little research on this topic. The few

existing studies have methodological limitations and a small number of cases. [1,2,3,11] Studies of mortality and morbidity are rare, but studies linking twin pregnancies to new concepts of severe maternal outcome (TMI) and maternal near-birth pregnancy (INM) are even rarer. The purpose of the present study is to present aspects related to the epidemiology of twin pregnancies, with a focus not only on clinical aspects already very well described in the literature, but also on maternal and neonatal diseases, as well as on problems related to critical situations, which are much less studied.

Research and Methods:

In the past, there has been much discussion about the best way to deliver in twin pregnancies, primarily for the second twin, who appears to have had the worst outcomes in vaginal delivery.[14,16] However, multicenter studies now provide strong evidence that vaginal delivery is safe when the first twin is cephalic. [17,18] Despite the evidence, caesarean section (C-section) is the primary mode of delivery in double pregnancies, with a reported prevalence in the range of 34 to 82%. [12,14,15,19,20] As with vaginal delivery, induction of labor has also been shown to be safe, but its prevalence is still very low. [21] It has been noted that the prevalence of caesarean section in double pregnancies is increased, regardless of the population sample assessed, particularly in Brazil. WHO recommends that CS rates should not exceed 10–15% of total births, as higher caesarean section rates are not associated with reduced maternal or neonatal mortality. In contrast, high rates of CS may be associated with worse maternal outcomes. These results raise doubts about the safety of twin births, diagnostic delays, and treatment of complications. However, we must consider the possibility of inadequate care, given evidence-based management. Further research is important to better understand the twin pregnancy profile and its management. Twin pregnancies are a high-risk condition that requires adequate prenatal care for the best possible maternal and perinatal outcomes. [4,13]

Research results:

Little has been discussed about the statistical approach to twin pregnancies, and analyses are heterogeneous. Studies that use a mixed population of singleton and twin pregnancies often face difficulties in determining the sample. Efforts should be made to obtain a standardized analytical approach to be used in studies of twin pregnancies. Inadequate. A twin pregnancy is identifiable, but the data may be insufficient or incomplete, especially for the second twin, whose data are often entered descriptively in the open field in an exploratory clinical form. Chorionicity is easy to assess clinically. However, unlike assisted reproductive technologies, it cannot be questioned in studies that interview women. Therefore, this information is not often evaluated and will be of great importance, especially for perinatal outcomes. Therefore, many studies give results without statistical significance. The use of large databases and multicenter studies to evaluate rare conditions such as twin pregnancies should be encouraged. There are databases, such as Brazil's

SINASC, and they are often in the public domain. With more specific statistical analysis, the identification of the study population may make it difficult to assess twin pregnancies. In a female/pregnancy study, the number of live births from twin pregnancies is not always clear. In a study where the focus is on the newborn baby, the number of women/pregnancies is rarely explicit. The number of live births of twins is not always clear and does not simply correspond to double the number of pregnancies, since there can obviously be triple births or higher order births. In addition, intrauterine deaths may also occur. An estimate of the number of live births can be made, which is fundamental to the calculation of health indicators and can specifically guide the assessment of twin pregnancies. Fetal weight is also estimated individually based on analyses of similar studies, as mentioned earlier. Using special curves for twin fetuses and newborns would be ideal. However, it is also possible to use curves that represent the characteristics of the population under study. Low-birth-weight fetuses for gestational age (SGA) can be identified. Low weight for gestational age is a condition that fits the concept of fetal growth restriction. Another difficulty in the analysis of twin pregnancies concerns the assessment of the viability of the newborn, usually expressed by 5-minute appearance, pulse, grimace, activity, breathing (Apgar score< 7. In particular, in multiple pregnancies, it would be reasonable to consider the entire range of possible schemes of perinatal conditions with impaired viability. For example, you can create 3 groups: both newborns with an Apgar score of < 7; only the first one with an Apgar score of < 7; and only the second with an Apgar score of < 7. All of these analytical approaches may contribute to resolving some of the situations that arise in a special condition called twin pregnancy, which remains a challenge for researchers. [22]

Conclusions:

Twin pregnancy is a rare condition that has a number of features and difficulties not only in clinical management but also in the scientific approach, making it a challenge for obstetricians and researchers. Compared to singleton pregnancies, twin pregnancies are associated with several maternal complications, including SMM and MNM, as well as perinatal mortality and morbidity. Possibly due to childbirth, its safety conditions and the identification of high-risk groups. This characterizes a great need for health professionals and centers that are informed and instrumented for proper prenatal, delivery, and neonatal care. On the other hand, the lack of conclusive and specific evidence of determinants, concomitant factors, and subsequent maternal and perinatal outcomes of twin pregnancies in Brazil and globally indicates the need for further research to address these challenges. The focus should be on population-based studies using electronic birth registries or large international multicentre trials.

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