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Review Article

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The Newborn of Adolescent Mother

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Abstract

The adolescent mother has inadequate availability of nutrients during her pregnancy, because her growth and development continues, to which is added fetal growth and development. The presence of anemia, the risk of pre-eclampsia, preterm delivery, chorioamnionitis, the consumption of cigarettes and alcohol, offer a panorama that facilitates the birth of low-weight and premature newborns, a situation that is often accompanied by maternal morbidity and mortality and perinatal.

Keywords: Adolescent mother; Maternal morbidity; Pregnancy; Preterm delivery

How is maternal malnutrition defined?

Maternal malnutrition can occur in adolescents during pregnancy, mostly, but not exclusively, in developing countries [1]. Maternal malnutrition is defined as a body mass index less than 18.5 and a chronic energy deficit. Malnourished women during conception rarely improve their nutritional status during pregnancy, as they have an additional demand for nutrients for the growing fetus [2].

What factors are associated with malnutrition during pregnancy in adolescent mothers?

The inadequate availability of nutrients during pregnancy is probably the most important environmental factor influencing pregnancy outcomes. There are two groups of women at risk: one group is adolescents who conceive two years after menarche who will become pregnant with little reserves, because they need nutrients for their own growth; the other group is made up of adolescent women who have had a short delivery interval (less than 18 months) and may not have received sufficient nutrient replacement since the previous pregnancy. In both cases, the nutritional status before conception can compromise its ability to support fetal growth and development [2,3]. In developing countries, malnutrition is associated with low economic status, poor personal and environmental hygiene, lack of education, and large family size.

How does nutrition affect adolescent girls in pregnancy?

Adolescence is a period of nutritional vulnerability. Normal development, linear growth, and changes in maturity cannot occur without adequate nutritional intake. The factors that contribute to nutritional disorder are poverty, abuse, sociocultural influence, lack of access to education and health care [4, 5]. Adolescent mothers are at risk because they weigh less and have a lower body mass index than adult women, they recover more slowly and with difficulty, their newborns have lower weight and height for age compared to infants of adult mothers [6]. Most adolescent girls do not meet the estimated average requirements for Vit D, Vit E, Mg, Fe, Ca, and the additional supplements administered are not sufficient to correct Mg and Ca deficits [7].

What is the maternal weight gain during pregnancy?

Gestational weight gain is influenced by maternal physiological and metabolic changes, as well as placental metabolism. Poor nutritional status before pregnancy, poor nutrition during pregnancy, and concern about body image collude in adolescents to have childbirth preterm and delayed intrauterine growth [8]. Weight and body mass index had an inverse relationship with weight gain in pregnancy, with lower values there was greater weight gain [9].

How is poor maternal nutritional status affected in the fetus?

The decrease in maternal nutrients can contribute to increasing the incidence of preterm birth or intrauterine growth

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retardation, as well as increasing the risk of maternal morbidity and mortality. In the pregnant mother, nutrients are shared between mother and fetus. In severe nutritional deficiencies, the fetal compartment is favored [2].

The second birth of an adolescent mother is a risk factor for low birth weight and prematurity, a risk that increases if they are under 16 years of age, if they are single, or the father is not identified [3].

What maternal morbidity occurs during adolescent pregnancy?

Hypertension occurs in 12% of their pregnancies, and the risk of preeclampsia has an OR of 3.2 to 3.7 [10]. Teenage girls are at higher risk for sexually transmitted diseases from having multiple intimate partners, unprotected sex, and obstacles to getting medical care. This condition has been associated with preterm labor, chorioamnionitis, and postpartum infections. Vertical transmission of Chlamydia during vaginal delivery can lead to neonatal pneumonia and ophthalmia. Gonorrhea is an entity that must be taken into account [10]. 36% of pregnant adolescents use cigarettes, and 1.1% can consume alcohol and drugs [11]. 4-8% have depression, which is accentuated in the second and third trimesters. A high percentage of them have postpartum depression. Anemia is a very common complication [4].

Why do adolescent girls have higher maternal mortality?

Pregnancy is the leading cause of death for young women between the ages of 15 and 19. They have twice the death rate of those over 20 years of age, and if they are under 15 they are five times more likely to die. Biological, economic and social factors compromise the health of adolescents causing risk. Marriage under the age of 18 is a cultural factor that also causes danger. The real inequities compared to men add risk by having fewer opportunities in education, employment and control over their reproductive health [12].

Neonatal morbidity

Pregnancy in adolescent women is a public health problem due to the multiple factors involved that compromise the well-being of the mother-child binomial. They have the highest incidence of neonatal morbidity: patent ductus arteriosus, respiratory distress syndrome, intraventricular hemorrhage, necrotizing enterocolitis, and pulmonary dysplasia have been reported in the preterms [13, 14]. The incidence of low birth weight newborns is higher among those aged 10-14 than those 15-19 years [15]. In this first group, 90% were to term and were born vaginally, jaundice was present in 5% and sepsis in 6%, there were no respiratory problems [16].

Perinatal Mortality

The risk of neonatal death in the children of adolescent mothers is high, with a higher risk in mothers with early adolescence (10-14 years), and maternal morbidity influences neonatal outcomes [17-20]. The neonatal mortality rate is one and a half times higher than for other mothers, reflecting their neonatal weight. Factors associated with mortality in addition to birth weight and gestational age have been Apgar levels less than 7 at 1' and at 5' and congenital anomalies [18-20].

What to do for the benefit of the Mother-Child binomial?

This is a challenge for parents and educators to undertake Sex Education for children and adolescents. To reduce adolescent pregnancy, coordinated efforts of social development and the educational sector are required, as well as an additional effort to make them understand personal care and assistance to Reproductive Health services [21]. In the case of early adolescence (10-14 years), the protection of parents and the environment is necessary, they are poor and lacking in school education, they suffer from stigma and discrimination [3,15, 22]. The gap between the formal recognition of adolescents as subjects of rights, and the negative sociocultural conceptions and evaluations of adolescence that always circulate and are reproduced on a daily basis, have repercussions on self-esteem and affect the possibilities of accessing resources and opportunities. This reality increases the vulnerability and risk that are reflected in adolescent pregnancy and the rejection suffered by pregnant adolescents [23,24].

Conclusion

Pregnancy in adolescent women is a Public Health problem due to the risk of morbidity and mortality in mothers and children. Pregnancy is the leading cause of death for young women between the ages of 15 and 19. The adolescent mother has inadequate availability of nutrients due to the demands that she and the fetus need for their development and growth. The prevalence of prematurity and intrauterine growth retardation is high. Sex education for children and adolescents is a necessity as well as recognizing adolescents as subjects of rights.

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