

Research Article

Maternal and Fetal Outcomes in Adolescent Pregnancies

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Abstract

Objectives: Adolescent period and pregnancies during this period is a controversial issue with many aspects and should be addressed both socially and medically. Although this situation is more common in Turkey, it is an important health problem worldwide. Adolescent pregnancies are high-risk maternal and fetal pregnancies. Our study aimed to evaluate maternal and fetal outcomes in adolescent pregnancies.

Methods: In this study, the records of 2088 adolescent pregnant women aged 18 years and younger who gave birth in the Gynecology and Obstetrics Clinic of Zeynep Kamil Women's and Children's Hospital between 1996 and 1997, and the records of adult pregnant women aged 19 years and older who were examined as a control group were retrospectively analyzed. Demographic characteristics, presentation, indications for hospitalization, mode of delivery, obstetric outcomes, and obstetric complications of adolescent and adult patients who gave birth in our hospital were compared.

Results: It was found that 2088 adolescent pregnant women included in the study had a singleton delivery. Compared with the control group, it was found that the threat of preterm delivery was higher, birth weight was lower, and the cesarean section rate was higher.

Conclusion: Adolescent pregnancies were found to be at risk for preterm delivery, IUGR, fetal distress, low APGAR score, and low birth weight, and antenatal follow-up was less frequent in adolescent pregnancies. Healthcare workers should be careful about the prevention and risks of adolescent pregnancies and frequent antenatal follow-up if detected.

Keywords: Adolescent, Pregnancy, Fetal outcomes

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The World Health Organization (WHO) defines adolescence as 10-19 years of age. Pregnancies occurring in this age group, which is called the adolescent group in the world, can lead to important social and medical problems. Because this age group's physical, psychological, and social development is not fully formed, managing a potentially complicated process such as pregnancy can cause serious problems for adolescents. Adolescent pregnancies may cause adverse conditions in terms of maternal and infant health. Therefore, they are classified as high-risk pregnan-

cies. Although adolescent pregnancies tend to decrease today, a problematic social environment, low socioeconomic level, nutritional disorders and difficulties in accessing health services indicate that pregnancies in this period may still pose a significant health problem.^[1-3]

Many studies have demonstrated the risks and adverse outcomes of pregnancies in this period.^[4, 5] However, few studies have expressed an opposing opinion on this subject.^[6, 7] Our study aimed to reveal the complications of adolescent pregnancies by evaluating maternal and fetal outcomes.

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Methods

In this study, the records of 2088 adolescent pregnant women aged 18 years and younger who gave birth in the Gynecology and Obstetrics Clinic of Zeynep Kamil Women's and Children's Hospital between 1996 and 1997, and 501 adult pregnant women aged 19 years and older who were examined as the control group were retrospectively analyzed. Demographic findings, indications for hospitalization, pregnancy complications, indications for cesarean section, and neonatal outcomes were evaluated and compared. Maternal age, gravida, parity, number of living babies, consanguineous marriage, and marital status were recorded. Multiple pregnancies and deliveries below 500 grams were excluded from the study. For the statistical analysis, student-t, Chi-square, Fisher exact test, and logistic regression analyses were performed using the SPSS for Windows program.

Results

The number of adolescent pregnancies was 2008 and the number of adult pregnancies was 501. When demographic data were compared, a significant difference was found. Among the indications for hospitalization, the rate of admission due to preterm labor was significantly higher in the adolescent group. While the ratio of preterm labor was 11.4% in this group, this rate was 4.4% in the adult group. The rate of hospitalization due to preeclampsia was higher in the control group.

When pregnancy complications were analyzed, although there was no statistically significant difference in terms of preeclampsia, this complication was more common in the adult group. Hypertension and preterm labor were more common in the adolescent group. There was a significant difference in oligohydramnios (10.9% in the adolescent group and 6.8% in the control group). The frequency of anemia was statistically significantly higher in the adolescent group. Although there was a superiority in the adolescent group in terms of urinary infections, the opposite was found in genital infections.

When the indications for cesarean section were analyzed, fetal distress was the most common indication in adolescents with a rate of 3.2%, while this rate was 0.6% in adults. No significant difference was found in other indications.

When neonatal outcomes were analyzed, the mean birth weight was 2997 ± 626.0 g in adolescent pregnancies, while this value was 3223 ± 604.0 g in adult deliveries. Although not statistically significant, the female gender was predominant in adolescent deliveries while the male gender was predominant in adult deliveries. There was no statistically significant difference between Apgar scores.

Discussion

The prevalence of adolescent pregnancies varies between 3.2% and 42%.^[8,9] In addition to adversely affecting maternal and infant health, studies are available reporting that adolescent pregnancies, which may lead to social problems, are associated with poor fetal and maternal outcomes. In studies examining preterm delivery, preterm delivery was found to be high in adolescent pregnancies similar to other studies that did not include the advanced maternal age group. The risk also varies in specific age groups; for example, in a study conducted in Brazil with 31,200 adolescent pregnant women, the highest risk was observed in pregnant women aged 15 years and younger.^[10] In a study conducted in Sahara Africa, one of the places where the incidence of adolescent pregnancy is the highest, the prevalence of preterm birth was 44% in adolescents and 21% in adults, and a significant difference was found.^[8,10,11] Our study shows that the cesarean delivery rate of adolescent patients was significantly lower than that of the control group. However, the relatively low cesarean section rate in adolescents should be considered high compared to cesarean section rates considered normal. The fact that many patients in our clinic have a low socioeconomic level, limited educational opportunities, have low antenatal care utilization, and many patients are referred to our hospital due to high obstetric risk may explain the high cesarean section rates in adolescents. While in some studies, data consistent with our study were observed,^[12,13] studies are also available that found higher cesarean section rates in adolescents.^[5] In our study, the rates of intrauterine growth retardation (IUGR) and fetal distress in the adolescent pregnant women were found to be higher than in the control group, as expected. These findings are compatible with other studies.^[14] Preeclampsia is a problem frequently observed in adolescent pregnancies and it has been suggested that the higher prevalence of preeclampsia in adolescents may be explained by an immature immune system and a lack of antibodies blocking chorionic villi.^[15] This was not evident in our study.

Karabulut et al. found that the incidence of preeclampsia increased both in the adolescent group and in the advanced maternal age group.^[16]

While different studies revealed a high number of congenital anomalies in adolescent pregnancies,^[17] no significant result was obtained in our study and the study by Lacobelli et al.^[18]

Conclusion

In our study, adolescent pregnant women were found to be at risk for preterm delivery, IUGR, anemia, fetal distress,

low APGAR score, and low birth weight; however, no significant difference was found in the rates of placental anomaly and congenital anomalies. In addition, antenatal follow-up of adolescent pregnancies was found to be less frequent. Healthcare workers should be careful about the prevention and risks of adolescent pregnancies and frequent antenatal follow-up in case of detection.

Disclosures

Peer-review: Externally peer-reviewed.

Conflict of Interest: None declared.

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