PREGNANCY COMPLICATION AND OUTCOME AMONG TEENAGER

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ABSTRACT

Objective: To evaluate the obstetrical complications and neonatal outcome of teenage pregnancies in comparison with older group. Setting : This study was carried out in Al-Basrah General hospital from 1st of October 2010 to 31st of March 2011. Study design: This study included 116 primigravida women aged 15-19 year as a case group & 116 rimigravida women aged 20-24 year as a control group admitted to labour word during the period of study, all women recieved standared labour management in cluding history & complete general & obstetric examination. Both groups were compared for the presnce of any pregnancy complication & for the mode of delivery and Neonatol outcome also compared between the two groups. Results: teenage mothers had a higher proportion (15.5%) of preterm deliveries compared to (4.3%) in the adult mothers and had higher proportion of low birth weight babies (19,8%) compared to adult mothers.(6.89%).

INTRODUCTION:

Teenage pregnancy is refered to a teenage or underage girl (usually within the ages of (13 -17 years) becoming pregnant. The term in everyday speech usually refers to women who have not reached legal adulthood, which varies across the world, who become pregnant. The average age of menarche (first menstrual period) in the U.K is 12.6 years old, though this figure varies by ethnicity, and body weight. [1] Worldwide, rates of teenage pregnancy range from 143 per 1000 in some sub-Saharan African countries to 2.9 per 1000 in South Korea. [2][3] Pregnant teenagers face many of the same obstetrics issues as women in their 20s and 30s. However, there are additional medical concerns for younger mothers, particularly those under fifteen and those living in developing countries. [4] For mothers between 15 and 19, age in itself is not a risk factor, but additional risks may be associated with socioeconomic factors.[5] A report by save the children found that, annually, 13 million children are born to women under age 20 worldwide, more than 90% in developing countries. Complications of pregnancy and childbirth are the leading cause of mortality among women between the ages of 15 and 19 in such areas.[4]

Causes of teenage Pregnancy

In societies where adolescent marriage is uncommon, young age at first intercourse and of contraceptive use may be factors in teen pregnancy.[3] Most teenage pregnancies in the developed world appear to be unplanned.[3] In some societies such as india early marriage are important factor in the rate of teenage pregnancy.

Medical outcomes

Maternal and prenatal health is of particular concern among teens who are pregnant or parenting .The worldwide incidence of premature birth and low birth weight is higher among adolescent mothers.[5][6] research indicates that pregnant teens are less likely to receive prenatal care, often seeking it in the third trimester, if at all. [5]

Many pregnant teens are subject to nutritional deficiencies from poor eating habits common in adolescence, including attempts to lose weight through dieting, skipping meals, food faddism, snacking, and consumption of fast food. [7] Complications of pregnancy result in the deaths of an estimated 70,000 teen girls in developing countries each year. Young mothers and their babies are also at greater risk of contracting HIV.[4] Risks for medical complications are greater for girls 14 years of age and younger, as an underdeveloped pelvis can lead to difficulties in childbirth. Obstructed labour is normally dealt with by Caesarean section in industrialized nations; however, in developing regions where medical services might be unavailable. It can lead to eclampsia Obstetric fistula, infant mortality, or maternal death.[4]

Impact on the mother

One study in 2001 found that women who gave birth during their teens completed secondary- level schooling 10-12% as often and pursued post-secondary education 14-29% as oftenas women who waited until age 30. [8]

One-fourth of adolescent mothers will have second child within 24 months of the first. Factors that determine which mothers are more likely to have a closely-spaced repeat brith include marriage and education: the likelihood decreases with the level of education of the young woman- or her parents- and increases if she gets married. [9]

Impact on the child

Early motherhood can affect the psychosocial development of the infant. The occurrence of developmental issues is increased in children born to teen mothers. [10][11] One study suggested that adolescent mothers are less likely to stimulate their infant through affectionate behaviors such as touch, smiling and verbal communication, or to be sensitive and accepting toward his or her needs. [10] Another found that those who had more social support were less likely to show anger toward their children or to rely upon punishment. [12] Daughters born to adolescent parents are more likely to become teen mothers themselves.[13]

Aim of the study

To evaluate the obstetrical complications and neonatal outcome of teenage pregnancies in comparison with older group.

Material & Methods

A prospective, case control study conducted Al-Basra General hospital from first of October 2010 to 31st of March 2011. The women included in this study were 116 women aged 15-19 years as a case group & 116 women aged 20-24 years as a control group. The inclusion criteria were: Primigravida women with single viable pregnancy in third trimester admitted to labor word either in labour or for management of any obstetrical complications. All women received stranded labour management including history & complete general & obstetric examination. The certainty of gestational age was established according to last menstrual period & ore early ultrasound examination. Women with uncertain gestation did not included in this study. Antenatal complications of pregnancy were recorded either from antenatal record if available or from taken a history from the patient, All women were sent for laboratory investigations including hemoglobin level & General urine examination. Anemia was defined as hemoglobin level of less than 10 g/dl[14]

Hypertension was present when blood pressure is equal or more than 140/90 mm Hg.[15] Spontaneous preterm labour was defined as occurrence of spontaneous labour resulting in delivery before 37 completed weeks gestation. Low birth weight (LBW) is the weight at birth of less than 2500 gram irrespective of the gestational age.[16] All women were followed for the followings: mode of delivery , any post partum complications including genital tract injury , development of post partum hemorrhage & retained placenta. Neonatal outcome parameters including body weight, APGAR Score at 1&5 minutes , admission to neonatal intensive care unit (NICU) & congenital anomalies were also observed. Statistical analysis was performed with chisquare test. Significance was set as P-value less than 0.05.

RESULTS

Figure I- shows the age distribution of the women (30.2%) of teenage women conceived at 19 years old while peak incidence of pregnancy among second group is 24 years old (25.9%).

Table I- Shows the level of education, it shows that most women ages 15-19 years are of primary level of education (53.44%) while women aged 20-24 years are of intermediate & secondary level .

Table II- Shows the frequency of antenatal visits in both groups, it shows that 67.2% of the women aged 15-19 years & 71.5% of the women aged 20-24 years had 3 or more antenatal visits during their pregnancy.

Table III – Shows the frequency of pregnancy complications in both groups , it shows that there was a significant increase in the incidence of spontaneous preterm labour in women aged 15-19 years in comparison to women aged 20-24 years (15.5% versus 4.3%).

Table IV- Study the mode of delivery in both groups , it shows that there was no significant difference in the mode of delivery between the two group. Although the teenager has higher incidence of caesarean section (12.9% versus 9.48%) but this difference was statistically not significant.

Table V- Study the neonatal outcome in both groups.

There were 23 babies (19.8%)weighing less than 2500 grams born to the teenage women compared with 8 babies (6.89%) in the older age group & this difference was statistically significant.

Also there were higher incidence of admission to NICU among babies of teenage mother (23.27%) & there was no significant difference in the occurrence of low APGAR score at 5 minutes & congenital anomalies between the two groups.

DISCUSSION

Teenage pregnancy is a worldwide problem bearing serious social & medical implication relating to maternal & child health.[17] In this study , the highest pregnancy rate among teenage occur at 19 year old while peak incidence among second group is at 24 years. It is important to distinguish between older teenage (17-19 years) whose reproductive capacity is good & those age below 16 years in whom obstetric complications are significantly greater,[18] this explain the non-significant difference in the maternal complications between the study group & the control group like hypertension, anemia & urinary tract infection, this is in agreement with Mahfouz et al[19] who shows the prevalence of anemia & hypertension was not significantly different among primigravida

of both age group. In this study there was higher incidence of spontaneous preteens labour (15.5% versus 4.3%) & low birth weight babies (19.8% versus 6.89%) in teenage ,group in comparison to older group, this result is in agreement with another study done in India by mukhopadhgay et al[17]. Whose show that teenage mothers had a higher proportion (27.71) of preterm deliveries compared to 13.1% in the adult mothers & has low birth weight babies (38.9% versus 30.4% respectively). Also another study done in North western Region of England shows that the risk of preterm birth was increased in first & second time mothers aged 14-17 years compared the reference group, birth weight was also reduced in the first & second time mothers aged 14-17 years. [20] Pregnant women in both groups had similar average Ante-natal visit & majority conduct the primary health care centre in fourth month of pregnancy with high incidence of ante-natal care visits more than 3 during pregnancy (67.25% and 71.6%) in case & control group respectively. Adequate antenatal care visits & routine iron supplements were partly responsible for the non-significant difference in the incidence of anaemia between teenage women & older women, this finding is in contrast to other study which found an increase in the incidence of anaemia in teenager.[21] The outcome of labour was favourable in teenager in comparing with control group with no significant difference in the incidence of caesarean section . This is in agreement with other studies [19,22]

CONCLUSION & RECOMMENDATIONS:

Teenage mothers are at increased risk of preterm birth & delivery of low birth weight babies.

This study highlights the importance of ensuring pregnant teenage have appropriate antenatal care as well as social support to avoid medical problems .

Tables and Figures

Figure (1)

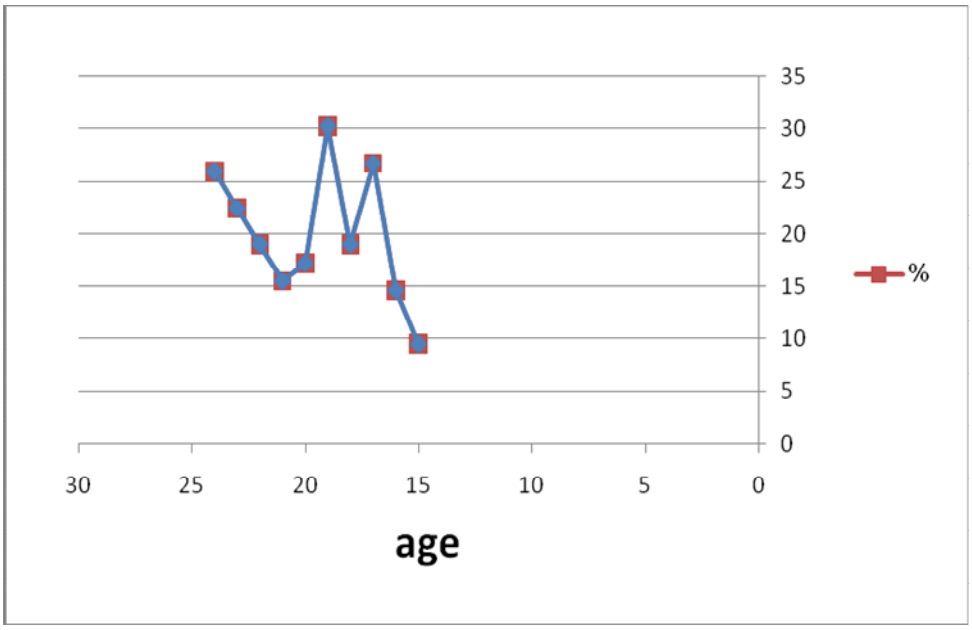

Table I- The level of education

Level	Case group		Control group		P-value
	No.	%	No.	%	
Illiterate	24	20.68%	25	21.55%	NS
Primary	62	53. 44%	19	16.37%	0.001
Intermediate	28	24.13%	32	27.58%	NS
Secondary	2	1.72%	32	27.58%	0.001
University	Zero		8	6.89%	0.01

Table II- Antenatal care vistits

No.of visits	Case group		Control group		P-value
	No.	%	No.	%	
3visits ormore	78	67.25 %	83	71.6%	NS
Less than 3 visits	38	32.75 %	33	28.4%	NS

Table III- Maternal Complications of Pregnancy

Complication	Case group		Control group		P-value
	No.	%	No.	%	
anemia	28	24.13%	13	11.2%	NS
UTI	10	8.62%	7	6%	NS
Hypertension	19	16.37%	14	12%	NS
APH	3	2.6	5	4.3%	NS
Preterm Labour	18	15.5%	5	4.3%	0.01
Third stage complications	10	8.6%	12	10.3%	NS

Table IV methods of delivery

Method	Case group		Control group		P-value
	No.	%	No.	%	
Vaginal	99	85.34%	101	87%	NS
instrumental	2	1.7%	4	3.44%	NS
C.S	15	12.9%	11	9.48	NS

Table V- Neonatal outcome

Character	Case		Control		P-value
	No.	%	No.	%	
LBW	23	19.8%	8	6.89%	0.01
Admission to NICV	27	23.27%	10	8.6%	0.01
APGAR Score less than 7 at 5 min	13	11.2%	8	6.89%	NS
Congenital anomalies	2	1.7%	3	2.58%	NS

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نتائج ومضاعفات الحمل لدى النساء في عمر ١٥_١٩ سنة

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الملخص

هدف الدراسة : دراسة مضاعفات الحمل لدى النساء في عمر ١٥_١٩ سنة ودراسة حالة الأطفال المولودين لهن .

مكان العمل: أجريت الدراسة في مستشفى البصرة العام للفترة من ٢٠١٠/١٠/١ ولغاية٢٠١١/٣/٣١

طريقة العمل: شملت الدراسة ١١٦ سيدة حامل في حملها الأول في عمر١٥_١٩ سنة وتم مقارنتها مع ١١٦ سيدة حامل في حملها الأول في عمر ٢٠_٢٤ سنة كمجموعة ضبط من النساء اللواتي ادخلن الى صالة الولادة خلال فترة الدراسة وتم استحصال تاريخ مرضي دقيق وتعرضن لفحص شامل وتم مقارنة المجموعتين فيما يتعلق بوجود اي مشاكل اثناء فترة الحمل ،طريقة الولادة وحالة الطفل الوليد.

النتائج: وجد ان النساء في عمر ١٥_١٩ سنة لديهن نسبة اعلى من الولادات المبكرة (15.5%) ونسبة اعلى من المواليد اوزانهم اقل من ٢٥٠٠غرام (19.8%) عند مقارنتهن مع النساء في عمر ٢٠_٢٤ سنة.