

Original research article

Adolescent Pregnancy: A Prospective Study in a Tertiary Care Centre

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Abstract

Background -Adolescence is a period of transition from childhood to adulthood (WHO 1975). It extends from 11 to 19 years. Teenage mothers and their babies have high risk of developing health problems like anemia, eclampsia and pre-term delivery. Maternal mortality rate is ~5 times more in teenage than older women.

Aim & Objectives-To discern Incidence of teenage pregnancy with incidence of fetal and maternal medical and obstetrical complication. To discern factors contributing to teenage pregnancy and strategies for its prevention.

Materials & Methods-It was a prospective study done on Pregnant teenagers of any trimester admitted to Labour Room Emergency (LRE), PMCH, during the period from January to December 2019. Patients and neonates were evaluated before and after delivery accordingly.

Results-About 4.7% to ~ 5% of total admissions of LRE were teenagers. Associated complications were anemia, CPD, HDP, increased surgical interference, assisted vaginal delivery. High risk of PROM, Preterm deliveries also present. Common indications of C.S.- Fetal Distress, CPD, HDP, PROM . Neonatal complications- LBW & prematurity.

Conclusions-Teenage pregnancy needs to be tackled as a priority to ease burden of socio-economic & health problems by giving them proper education, also their parents to bring about a change in the society.

Keywords – Teenage, Adolescent, Pregnancy

Introduction

Adolescence is a period of transition from childhood to adulthood (WHO 1975) according to WHO the period of adolescence extends from 11 to 19 years¹. Adolescent constitutes over 21.4 % of population of India². It has been estimated that about 12 million female of age 15-19 years give birth yearly in developing regions³. It is about 11% of total births. Majority of teenage pregnancy (~95%) is seen in developing countries & only 5% in developed countries which are about 20 times higher. Adolescent pregnancy is considered the leading cause of newborn and maternal mortality in developing countries⁴⁻⁶Prevalence of teenage pregnancy in India (2017)---7.9% (NHFS 4)

Aims & Objectives-This is a prospective study and aim of this study is to find out incidence of teenage pregnancy with incidence of fetal and maternal medical and obstetrical

complications & also to find out factors contributing to teenage pregnancy and strategies for prevention of problems.

Materials & Methods

Study design : Hospital based prospective study

Study place : Labour room of Department of Obstetrics and Gynecology

Study period : 1 year , January 2019 to December 2019

Sample size : 398 women

INCLUSION CRITERIA : All the teenage pregnancy (19yrs) of any trimester admitted to Labour Room Emergency (LRE), PMCH

EXCLUSION CRITERIA : Pregnant women of >19 years of age, Women with medical problems prior to pregnancy

DATA COLLECTION : Written informed consent was subsequently obtained from 398 cases during the period of 1 year from January 2019 to December 2019. A detailed questionnaire administered in local language and information was collected; For Mothers, age, educational status, booked or unbooked, marital status, Period of gestation, parity, mode of termination or follow up recorded Antenatal complications like Anemia, HDP, PROM, Polyhydromnios, oligohydromnios, twin pregnancy were studied.

Post partum complications like Genital injury, PPH, PPE, and co-morbidities recorded. Neonatal outcomes like birth weight, APGAR scoring & morbidities recorded

ETHICAL APPROVAL : Study approved by Institutional Ethical Committee

DATA ANALYSIS : Data collected in questionnaires were analysed by Microsoft excel.

Results

Total no. of patients admitted to LRE from Jan 2019 to Dec 2019- 8314 whereas, no. of teenage girls- 398, i.e., 4.78% - ~5%. Most of teenage women were from 18-19 age group- 384 (96.48%) out of 398, Most of them were primigravida, i.e., 365 (91.7%), out of 398. Total no. of deliveries (VD+CS) occurred in LRE—5711, Whereas, no. of teenage delivery --360, i.e., 6.3% of total & 90.45 % of adolescent pregnancy i.e 360 out of 398. Term delivery occurred in 339, i.e., 94.16 % whereas pre-term occurred in 21 cases (5.83%)

Total no. of adolescent women delivered vaginally were 222, i.e. 61.66% whereas delivery by C-section were in 138 cases (38.33%) Most common indication of C.S was fetal distress, either with PROM or arrest of labour 61 out of 138 ,(i.e., 44.22%) . Other common indication were CPD n=21 ,(i.e 15.25%), HDP n=22, (i.e.16%), primi with breech n=15, (i.e.11.01%), APH n=8 (i.e 5.93%) ,Obstructed labour n =6, (i.e 4.2 %),Failed induction n=4 (i.e 2.5%),Failed forcep n=1 (i.e 0.84%).1st& 2nd trimester pregnancy loss occurred in 29 out of 38 whereas conservative management was given to 9 patients to continue the pregnancy Surgical interference were also needed in few patients, Laparotomy for ectopic pregnancy (n=3) ,Inversion of uterus (n=1) , PPH (n=1) , Hysterectomy for septic abortion (n=1) , Molar pregnancy (n=1) , Incomplete or missed abortion (n=24) , Complete perineal tear (n=1) , Cervical tear (n=1) , Instrumental delivery (n=4)

There were 8 unmarried pregnant girls (2%)

Rh-ve pregnancy was seen in 12 cases out of 398 ,i.e., 3.01%

Medical disorders were also prevalent among teenage patients with pregnancy. In which, severe anemia (Hb% <7gm%) was found in 36 patients (9.04%) needing >1 BT whereas moderate anemia was more prevalent. Following this, HDP (n=19), heart disease (n=13), HbsAg positive (n=10), immunocompromised (n=3), jaundice & others were present in 6 cases. Twin pregnancy seen in 2 cases & IUD was seen in 8 cases

Mortality was seen in 3 cases of adolescent women due to severe anemia, heart disease & APE respectively. Neonatal outcome- most of them were born alive with good APGAR (n=279), some were deeply asphyxiated (n=38) for which they needed ICU admission, where 18 infants died. Rest needed some amount of resuscitation . Most of babies were LBW (n=166).

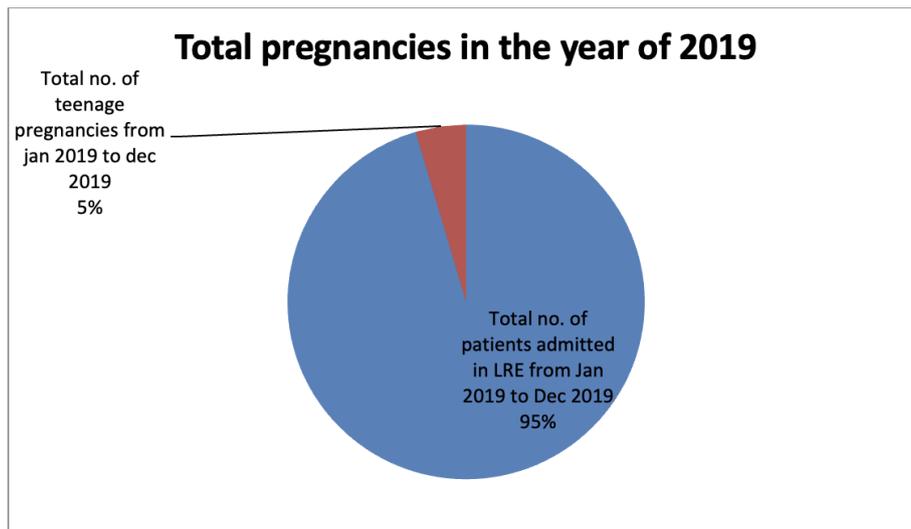


Figure 1:

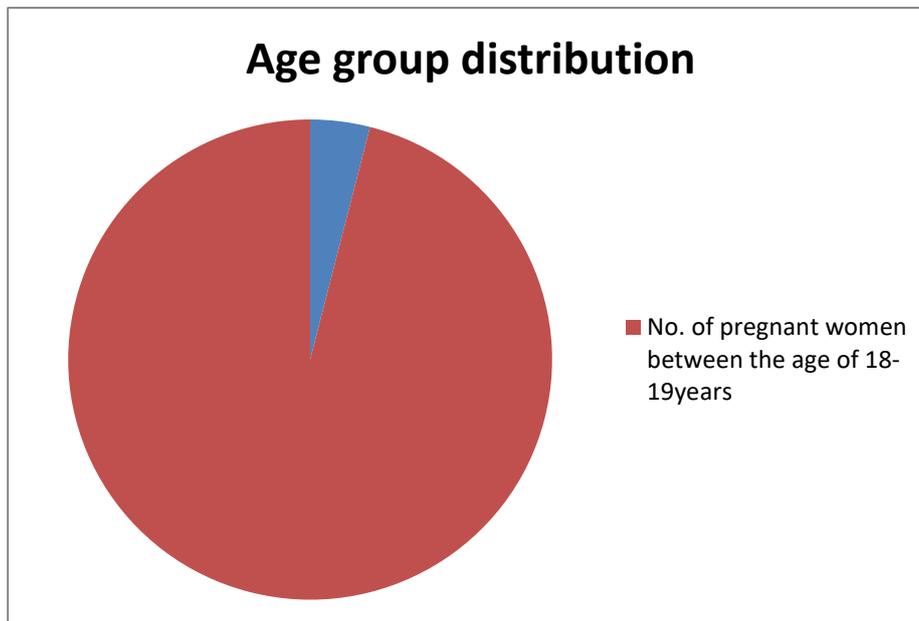


Figure 2:

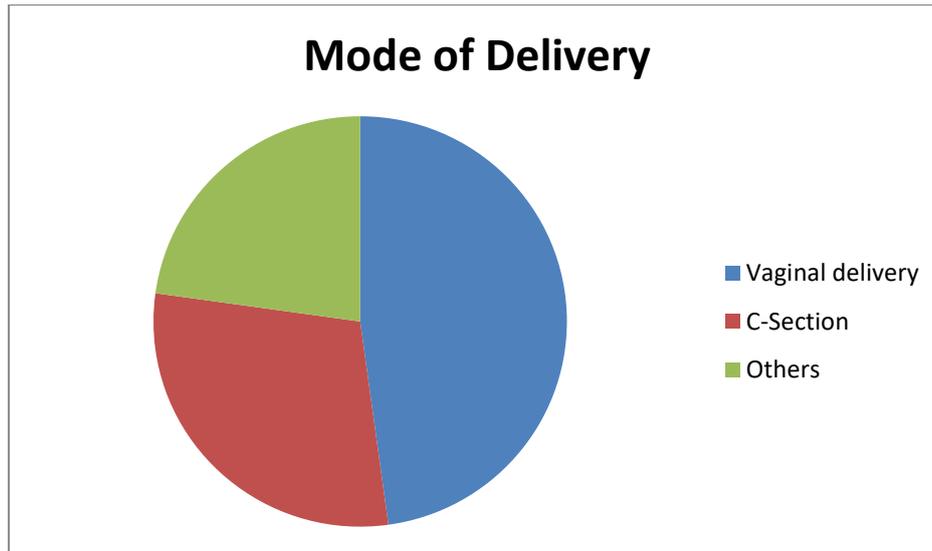


Figure 3:

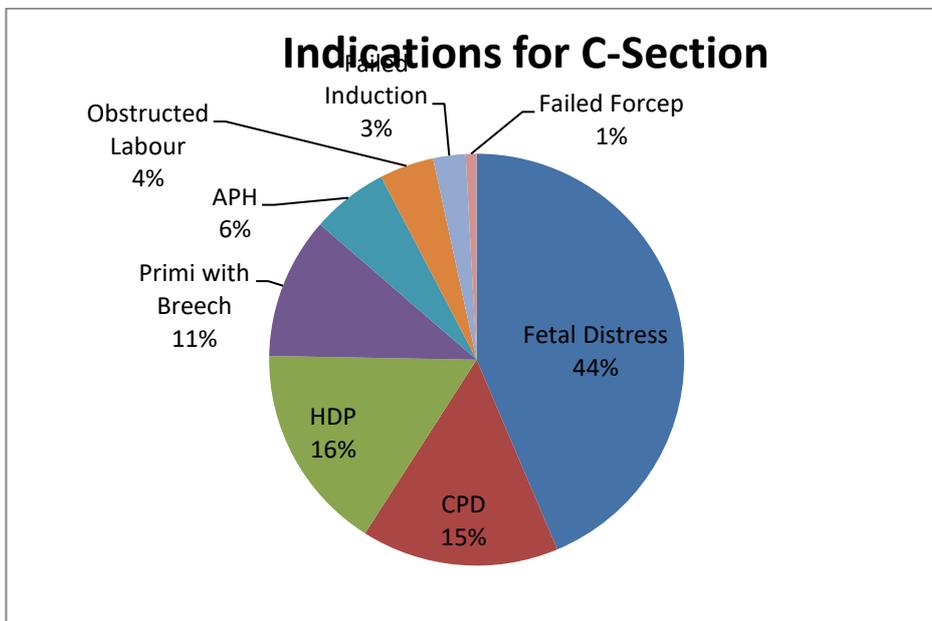


Figure 4:

Discussion

Adolescent pregnancy is a high risk situation because of physically, physiologically, biologically, mentally & psychologically immaturity¹. So pregnancy changes & events are often overlooked & ignored. Hence teenage mothers & their babies both are trapped in mesh of complications, & develop health problems, such as anemia, HDP, pre-term deliveries & contracting STDs & other infections. More often they need surgical interference in abortions, LSCS, perineal tear repair & instrumental deliveries. Prevalence of LBW may have adverse long term effect on babies' health & development born to teen mothers. Maternal mortality rate is nearly 5 times higher for teenage mothers as compared to older women.

A. Risk associated with teenage pregnancy-

Anemia which is more prevalent alone or HDP (pre-eclampsia or eclampsia) , PROM- seen more due to poor hygiene , IUGR, LBW, Prematurity are more prevalent , Exposure to risk of STD including HIV , Psychological instability and Mental health problem of young mothers ,

Pregnancy outside marriage have the risk of unsafe termination and leading to sepsis & hemorrhage

B. Factors responsible are -

Social- Social deprivation, poverty, illiteracy, lack of information about sexual and reproductive health, peer pressure ,inadequate access to services tailored to young people.

Family, community and social pressure to marry early, Lack of education or school drop out
Traditional & cultural behavior, cultural isolation, customs, fatalism . May also be due to sexual assault.

Strategies- In this context, every adolescent girl should be encouraged to raise her unsolved issues in order to achieve safe motherhood plus growth and development of their children⁷. Teenage pregnancy has to be tackled as priority to ease the socio-economic burden by improving in Antenatal monitoring, Lack of transportation services, Poor access to health care providers due to inhibitions in young girls, Paucity of health care facilities at ground level, Adequate neonatal care in vulnerable races.

TPP (Teenage Pregnancy Prevention Program)

Teenage pregnancy prevention program is a national evidence based grant program that funds diverse organization working to prevent teen pregnancy across the UNITED STATES (2010)⁸ Teenage pregnancy is a major medical and public health issue because it directly affects the immediate & long term well being of mother, father & child , families and society as a whole .Health situation of an adolescent is a key determinant of India's overall health, mortality, morbidity & population growth scenario.In order to prevent teenage pregnancy, our society has to improve adolescent reproduction & sexual health by improving education system, sex education, youth development, delaying age of marriage, meeting unmet contraceptive need, comprehensive understanding of abstinence, contraceptive revolution & emergency contraception⁹.Attitude of society needs to change. Freedom of movement, decision making, economic liberty of these young girls is of prime concern.

Conclusion:

In our study ,incidence of adolescent pregnancy is 4.78%,as compared to National statistics (7.9 %). It is only Tip of Iceberg.Because prevalence is higher in rural areas (9.2%) compared to urban areas(5%).In spite of marriage law poverty , illiteracy and social factors are responsible for early marriage. Even with liberalisation and availability of MTP services their awareness and acceptability is low. There is definite need of contraception and sex education, health education in this group.

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