

SHORT ARTICLE

An Audit of Loss of Pregnancy as an Answer to Differentiated Sex RatioShambhavi Ashutosh Vaidya¹, Rashmi Kundapur², Sudhir Prabhu³, Harshitha HN⁴, Santosh PV Rai⁵, Anusha Rashmi⁶

¹Postgraduate, Department of Community Medicine, K.S. Hegde Medical Academy, Deralakatte, Mangalore; ²Professor, Department of Community Medicine, K.S. Hegde Medical Academy, Deralakatte, Mangalore; ³Associate Professor, Department of Community Medicine, Father Muller's Medical College, Mangalore; ⁴Postgraduate, Department of Community Medicine, K.S. Hegde Medical Academy, Deralakatte, Mangalore; ⁵Associate Professor, Department of Radio-diagnosis and Imaging, Kasturba Medical College, Mangalore; ⁶Assistant Professor, Department of Community Medicine, K.S. Hegde Medical Academy, Deralakatte, Mangalore

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Corresponding Author

Dr. Sudhir Prabhu, Associate Professor, Department of Community Medicine, Father Muller's Medical College, Mangalore
E Mail ID: sudhirhaladi@gmail.com

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Abstract

Context: Abortion and unintended pregnancy in India is on the rise, and a large proportion of these unintended pregnancies end up in induced abortion. The soaring rate of abortion among Indian women can be influenced by a plethora of reasons.

Aims: 1) To identify the rate of second trimester abortion 2) To determine the reasons behind second trimester abortions

Settings and design: An audit of all the abortions in a district of South India was conducted. **Material and methods:** The data was obtained from the records of abortion reported in the year 2018 from the District Health Office and analysed. **Statistical analysis used:** Descriptive statistics

Results: Majority of the pregnant ladies with abortion (55.73%) were aged between 21-30 years and abortions in second trimester were observed to be comparatively higher (50%). Among the myriad of reasons found for second trimester abortions, spontaneous abortions contributed to around 30% while 11.92% had no cause mentioned. **Conclusion:** A high rate of second trimester abortion throws suspicion towards sex selective abortions.

Keywords

Abortions; Induced; Second Trimester; Spontaneous; Sex Selective

Introduction

Every year, on an average, about 210 million women become pregnant worldwide and one-third of these end in stillbirths, spontaneous or induced abortions.(1) Antecedently, termination of pregnancy was practiced with or without legal and social sanctions while in the recent years, abortion has gained tremendous popularity to dispose an unwanted child owing to the availability of safe abortion.(1) To avert the misuse of induced abortions, Medical Termination of Pregnancy Act (MTP Act) was enacted in India in 1971, the Act was subsequently revised in 1975 and it stated that each pregnancy terminated had to be reported to the district health office.(1)

According to World Health Organization (WHO), of the total pregnancies, around 123 million are intended while the remaining 85 million (41%) pregnancies are unintended.(2) The intended pregnancies end in birth or miscarriage or stillbirth but an enormous proportion of unintended pregnancies end up in induced abortions. In India, women choose to terminate their pregnancies for a plethora of reasons that often reflect their social and economic circumstances.(1,3)

Despite the several measures taken by the government, sex selective abortions are still persisting nationwide.(4)

Aims & Objectives

1. To identify the rate of second trimester abortion
2. To determine the reasons behind second trimester abortions

Material & Methods

An audit of all the abortions reported in a district of South India was conducted based on the records available at the district level. The total data was acquired from the records of abortion reported in the district in the year 2018 available at the District Health Office. These records contained the abortion data sent as a report to the district by different health-care facilities like nursing homes, clinics, community health centres, district hospitals, secondary and tertiary care hospitals in the district. The details of the patients and the respective health-care facilities were kept confidential to maintain anonymity. The study attempted to identify the percentage of second trimester abortions and the reasons for the same which might plausibly explain the differentiated sex ratio. The following predetermined outcomes were searched in those records: the total percentage of abortions in each trimester and the percentage of various reasons for second trimester abortions.

Results

There were 793 abortions reported in the district. The age distribution of the women who reported abortion ranged from 18 to 45 years. Four percentage of the abortions were reported in women below 20 years of age while one percent of them were above the age of 40. Majority (55.71%) of the pregnant ladies with abortions were in the age group of 21-30 years while 33% of them were aged between 31-40 years and it is crucial to know that around 13.5% of the data regarding age were missing.

The observation was mainly based on second trimester abortion and reasons behind these abortions. It was noted that the percentage of total registered first trimester abortions (34.42%) were less when compared to the second trimester abortions, which was 49.68% ([Table-1](#)) and interestingly around 4.7% of abortions were observed to have occurred beyond 28 weeks of gestation ([Table-1](#)). Approximately 11% of the total abortions registered under MTP act did not report the weeks of gestation, furthermore, the data obtained were found to be incomplete.

On tabulating the varied causes of pregnancy loss, it was found that 29.94% of them were reported as spontaneous ([Table-2](#)) followed by incomplete abortion amounting to 24.11% while only a few were reported as intra-uterine deaths and a medical cause in mother or child constituted the remaining ([Table-2](#)). We also found that causes for 11.92% of the second trimester abortions were not mentioned. Consequently, on comparing the proportion of abortions and proportion of population of the respective sub-districts, it was noted that one of the sub-district's population proportion (18.92%) was not in accord with the proportion of abortion (34.2%) in that sub-district. Similar findings were noted when the proportion of second trimester abortions were compared with proportion of the population of the respective sub-

districts. As this is a record-based study, it was impracticable to identify the actual cause for abortions.

Discussion

The present study determines that the majority (56%) of the pregnant mothers with abortions were within the age group of 21-30 years, which is less, when compared to the studies done earlier wherein this age group was shown to be much higher (68.42-72%).(3,5,6) This change in the age group is probably because the age of marriage and child bearing in general has increased in the recent years. Also, these women are the ones who have greater yearning for a male child as it is believed that possibility of the lady to bear a male child in this age group is high. In the present study, around 34% of the abortions were the total registered first trimester abortion, which was rather less compared to an Indian study, wherein first trimester abortions were found to be the major contributor (78.8%) of abortions.(1) It is good to note that unregistered first trimester abortions could have contributed to the low percentage of first trimester pregnancy loss observed in our study and also, medical abortion has become an alternative method of first trimester pregnancy termination with the availability of various safe and effective methods.(4,7) In our district 49.7% of the abortions are second trimester abortions which is quite high compared to a study done by Veena et al earlier wherein only 21.2% of the abortions were observed in the second trimester.(1) Also, in a study done by Sahu P et al around 14% of the abortions belonged to second trimester.(6) This increase in second trimester abortions is not much understood though in around 30% of the women the cause behind these abortions were reported to be spontaneous while in 24.11% of them it was reported to be an incomplete abortion. In older studies, it was observed that 50% of the abortions were due to contraceptive failures, and majority had occurred in the first trimester, but in this study the reasons identified are quite variegated and majority of the abortions are confined to second trimester alone.(2) There are considerably significant number of abortions for which cause has not been mentioned, also the cause of the abortions mentioned could have been flawed. This was a simple audit to identify whether there were any correlation between the percentage of second trimester pregnancy loss and causes for second trimester pregnancy loss and sex differentiation in a district of South India. Also, the discrepancies noted in proportion of abortions and proportion of population among the various sub-districts points towards a need for an in-depth evaluation of the real cause of the abortions. Furthermore, the missing information by itself might be an indirect answer to the obscured truth of second trimester abortions.

Conclusion

It was found that 12% of the data regarding the date of abortion were missing or were incorrectly entered. In the

data available, 49.7% of the women had a pregnancy loss in the second trimester i.e. after 12 weeks which is very high when compared with other studies. In our study the main reason for the second trimester abortions was found to be spontaneous. But the high rate of second trimester pregnancy loss and subsequent disparity in the abortion proportion and population proportion of the sub-districts throw suspicion towards sex selective abortions.

Recommendation

The present study only emphasizes on the indirect reasons for the loss of pregnancy rather than the direct cause, hence a prospective study can be undertaken to identify the real cause of pregnancy loss and in addition to this, meticulous data collection systems need to be implemented in order to prevent duplication.

Limitation of the study

This is a record-based study hence liable for discrepancies due to inappropriateness of the data. Fairly large percentage of data regarding the causes of abortion were missing and also the uniformity in data entry was found to be low. Furthermore, this study has elucidated the indirect causes of pregnancy loss, while direct cause could not be established.

Relevance of the study

Despite the stringent regulations, sex selective abortions continue to be a discreet occurrence across the country and in order to achieve the sustainable development goal of reducing the maternal mortality as well as preventable deaths of newborn it is rather imperative to address this deep-rooted problem.

Authors Contribution

Conception and design of study: RK, SP, SPVR, AR: Generation of data: RK, SP: Data analysis & interpretation: SAV, HHN: Manuscript writing: SAV, HHN: Providing intellectual inputs: RK

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Tables

TABLE 1 SHOWING THE DISTRIBUTION OF ABORTIONS WITH GESTATIONAL AGE

Trimester	Frequency	Percentage
≤12 Weeks	273	34.42
12-28 Weeks	394	49.68
≥28 Weeks	38	4.7
Missing	88	11.09
Total (N)	793	100

TABLE 2 SHOWING VARIOUS REASONS STATED FOR THE ABORTION IN 2ND TRIMESTER

Cause for Abortions in 2 nd Trimester	Frequency	Percentage
Spontaneous	118	29.94
Bleeding/ Incomplete Abortion	95	24.11
No Development	31	7.86
Cardiac Defect	25	6.34
IUD*	8	2.03
Developmental Anomaly	56	14.21
Medical Reason	8	2.03
Missing	47	11.92
Others	6	1.52
Total	394	100

*IUD stands for Intra-uterine death