

Unsafe Second- Trimester Medical Abortion in Rural Practice: Declining Child Sex Ratio could it be Allarming Outcome?

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ABSTRACT

Objective: To determine the factors responsible for maternal morbidity and mortality in women who underwent an unsafe second-trimester medical abortion so that it would help health professionals to revise abortion policies and practices to reduce it.

Method: A retrospective record based data analysis was performed on patients with history of unsafe second-trimester medical abortion carried out at location other than our college hospital, during the period of June 2009 to May 2014.

Results: Out of 758 cases of abortion observed, 123 (16.22%) women had undergone an unsafe second-trimester medical abortion and admitted in obstetrics & gynaecology department with complications. Majority of patients were rural, illiterate, from very low socioeconomic background. Most frequent complain for admission was severe bleeding. The most common reason for the termination was unintended pregnancy. Of total 123, 19(15.44%) women sought abortion due to sex preference. Majority of provider were either paramedics or quacks. Complications observed in 86(69.91%) cases. Majority of 101(82.11%) patients required surgical interventions. Of total, 4 (3.25%) patients couldn't survive despite of all resuscitative measures.

Conclusion: Abortion right as well as safe abortion service is still a distant dream in rural areas of our state. Declining sex ratio could be an alarming sign which needs immediate attention and action.

Keywords: Unsafe medical abortion, second-trimester, maternal morbidity, child sex ratio.

INTRODUCTION

Unsafe abortion by WHO, a procedure for terminating a pregnancy that is performed by an individual lacking the necessary skills or in an environment that does not conform to minimal medical standards, or both. It is still continues to be a major contributor of maternal morbidity and mortality.

Globally approximately 42 million abortions are performed every year, ¹ second trimester abortion constitutes 10-15% of all abortion and accounts for two-thirds of unsafe abortion related complications annually.²

In India the exact incidence is unknown because of gross under-reporting of abortions, the most widely cited figure suggests that around 6.7 million abortions take place annually, of which only about one million are performed legally and remaining are performed by medical and non-medical practitioners.³ As per studies the prevalence of induced second trimester abortion is as high as 25%–30% in India. ⁴

In Chhattisgarh ,78% population live in rural areas, more than half of total districts of our state have been classified as remote, tribal, and extremist affected areas ,despite the fact percent of total abortion is only 2.1% and average month of pregnancy at the time of abortion is 3.3 month .⁵

As per FOGSI guidelines the use of mifepristone - misoprostol for second trimester

termination is yet not approved in India. However international evidence shows that it is a safe and effective method for termination of second trimester pregnancies.⁶

Our aim is to determine the frequency of women who underwent an unsafe second-trimester medical abortion and the factors responsible for maternal morbidity in these women so that it would help health professionals to revise abortion policies and practices to reduce it.

MATERIAL AND METHODS

This retrospective observational study (record based data analysis) was conducted in the department of obstetrics and Gynecology at Chhattisgarh Institute of Medical Sciences a government medical college and tertiary referral centre, between June 2009 and May 2014.

Inclusion criteria's were, patients with history of ingestion of MAP (medical abortion pills), admitted as an emergency with complaints that can be attributed to abortion such as heavy vaginal bleeding, lower abdominal pain, fever, incomplete abortion and for blood transfusion. Complete information on demographic and clinical variables like age, parity, reason's for seeking abortion, providers, complaints, complications and patient outcome were obtained by review of records and discussed. Qualitative data were presented as

frequencies and percentages. This study has been approved by ethical committee of our institution.

RESULTS

During the 5- year study period, total 758 cases of abortion observed, of which 123 (16.22%) women had undergone an unsafe second-trimester medical abortion outside the institute and later admitted to the hospital with complications. Out of 123, majority of women 72(58.53%) were between 20-29 years of age group, 111(90.24%) were married. Majority of 71 (57.72%) were uneducated, 78(63.41%) from rural back ground, 116 (94.30%) were Hindu by religion and 110 (89.43%) were from low socioeconomic status [Table: 1].

Out of total 123 women, 11(8.94%), 99 (91.48%), 10(8.13.0%) and 3(2.43%) women were nulliparous, multiparous, grandmultipara and parity of 7 or more respectively. Duration of pregnancy at the time of abortion was 13-20 weeks in 111(90.24%) and >20 weeks in 12(9.75%) women. [Table 2].

The reason for the abortion was unintended pregnancy in majority 104(84.55%) cases, of which 39(31.7%) were lactating or ignorant of being pregnant, 30(24.39%) were sought abortion for birth spacing or limiting family size, 23(18.69%) were unaware of any contraceptive methods. Unfortunately rest of 19(15.44%) of total 123, had undergone abortion due to sex preference [Graph 1].

Of total, 11(9.9%) providers were Allopathic /RMA/Ayush doctors, 35(27.0%) were quacks, 38 (27.9%) women had taken MAP as self medication, 39(35.10%) were Nurse or ANM[Graph 2]. Majority of 77(62.60%) women were admitted for heavy vaginal bleeding, 17(14%) for USG diagnosed retained products for evacuation, 16(13%) for blood transfusion, 9(7.31%) for severe abdominal pain and only 4(3.25%) for fever/chills [Graph 3] .

In our study majority of 99(80.48%) women required surgical evacuation, 36(28.80%) required blood transfusion and 6(4.87%) cases needed intensive care. Hysterotomy required in 1(0.81%) patient and emergency laparotomy followed by resection of horn needed in 1(0.81%) patient for ruptured ectopic pregnancy. Only 6(4.87%) patients didn't require any intervention at all [Table3].

Major complications observed in 86(69.91%) cases only, of which moderate to severe anaemia seen in 65(52.84%), shock in 14 (11.38%), septicaemia in 6(4.87%) and ruptured rudimentary horn in 1(0.81%) cases. Despite of all resuscitative measures we lost 4(3.25%) patients and remaining 119 patients were discharged well [Table 4]. However all of them had been made aware of post-abortion contraception but only 14 (3.5%) received DMPA injection and 1(0.81%) patient underwent tubectomy along with hysterotomy [Graph 4].

Table 1: Demographic Details (N=123)

Variable	No.	%
Age in years		
<20	11	8.94
20-29	72	58.53
30-39	34	27.64
>40	6	4.87
Marital status		
Married	111	90.24
Unmarried/Divorce/Widow	12	9.75
Educational status		
Educated	52	42.27
Uneducated	71	57.72

Table 1(contd...):

Variable	No.	Percentage
Residence		
Rural	78	63.41
Urban	45	36.58
Religion		
Hindu	116	94.30
Muslim	7	5.69
Socioeconomic status		
Low	110	89.43
Middle	13	10.56

Table: 2 Parity, gestational weeks (N=123)

Variable	No.	%
Parity		
0	11	8.94
1-3	99	80.48
4-6	10	8.13
≥7	3	2.43
Gestational weeks		
13-20	111	90.24
≥21	12	9.75

Table 3: Management

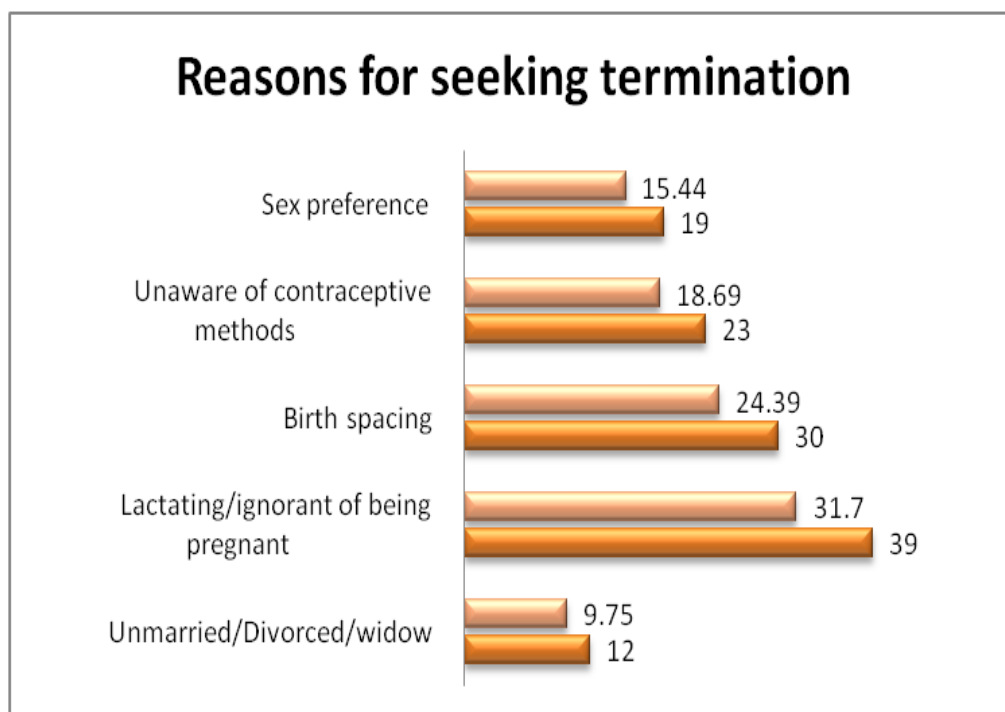
Medical Interventions	No.	%
Observation only	06	4.87
Blood transfusion	36	28.80
Intensive care	06	4.87
Surgical Interventions	No.	%
Surgical evacuation	99	80.48
Hysterotomy with tubectomy	01	0.81
Laparotomy	01	0.81

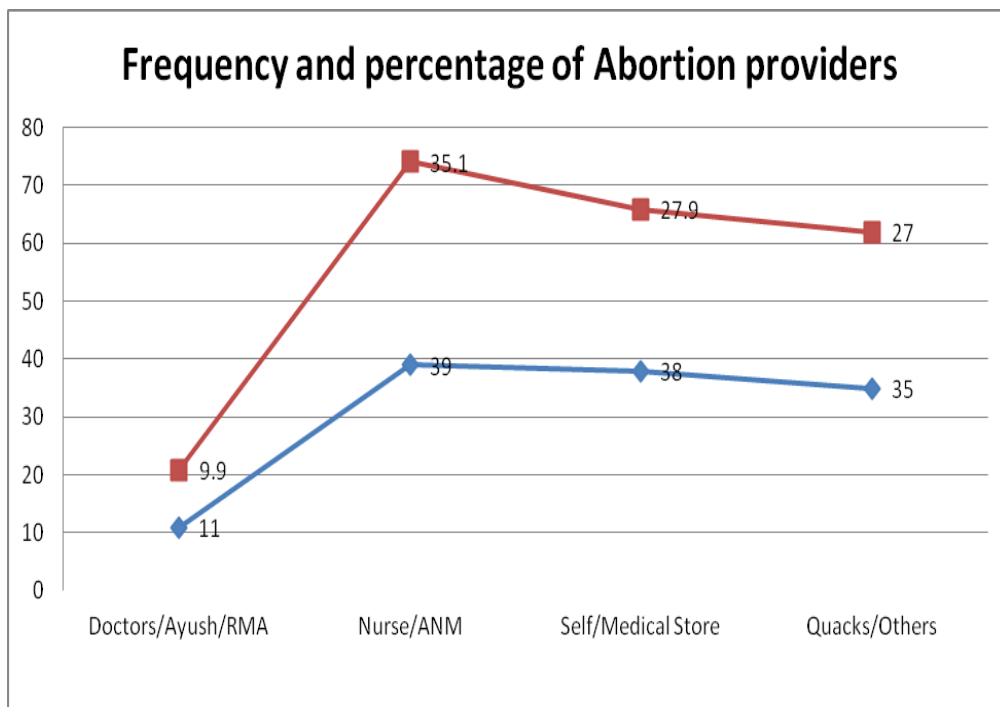
Table 4: Major Complications & Mortality,

Complications	No	%
Moderate to severe anaemia	65	52.84
Shock	14	11.38
Septicaemia	6	4.87
Ruptured rudimentary horn	1	0.81
Total	86	69.91
Mortality	4	3.25

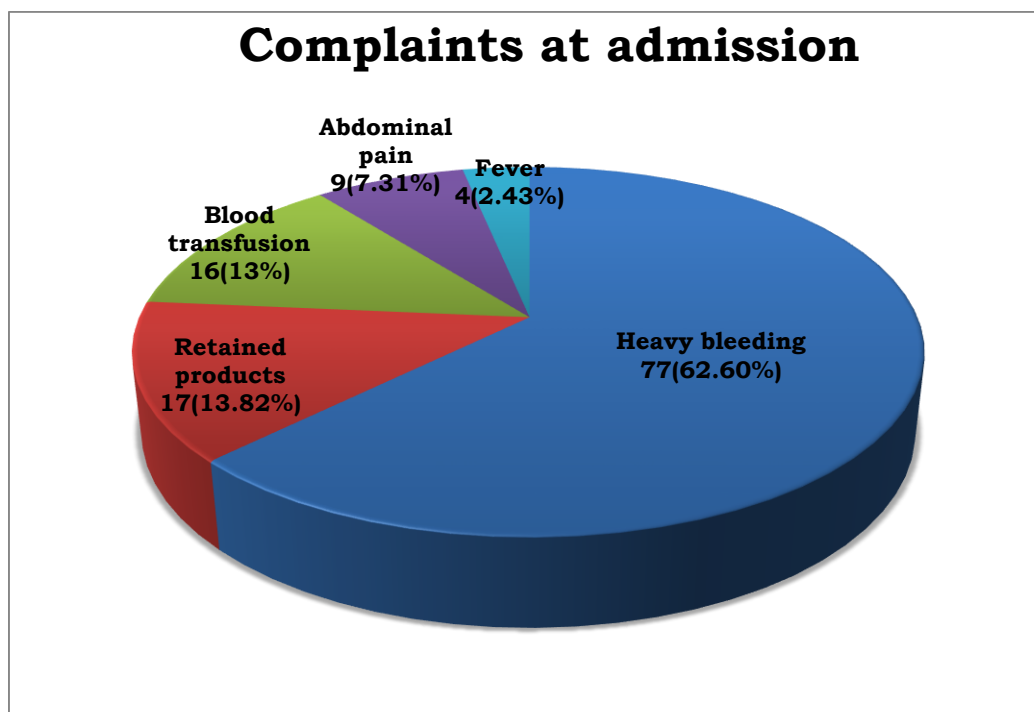
Table 5: Comparison of complications with studies on safe medical abortion

Study	No	Hemorrhage Requiring BT %	Incomplete abortion %	Infection %	Uterine Rupture %
Ashok PW et al 2004	1002	0.7	8.1	2.6	0.1
Dickinson 2005					
No Prior CS	619	1.9	34.4		0
Prior CS	101	4.0	41.6		0
Niinimaki et al		15.4	15.40	0	0
Partha M et al	61,62	0	14.4,10	0	0
Present study	123	28.8	80.48	3.25	0.81

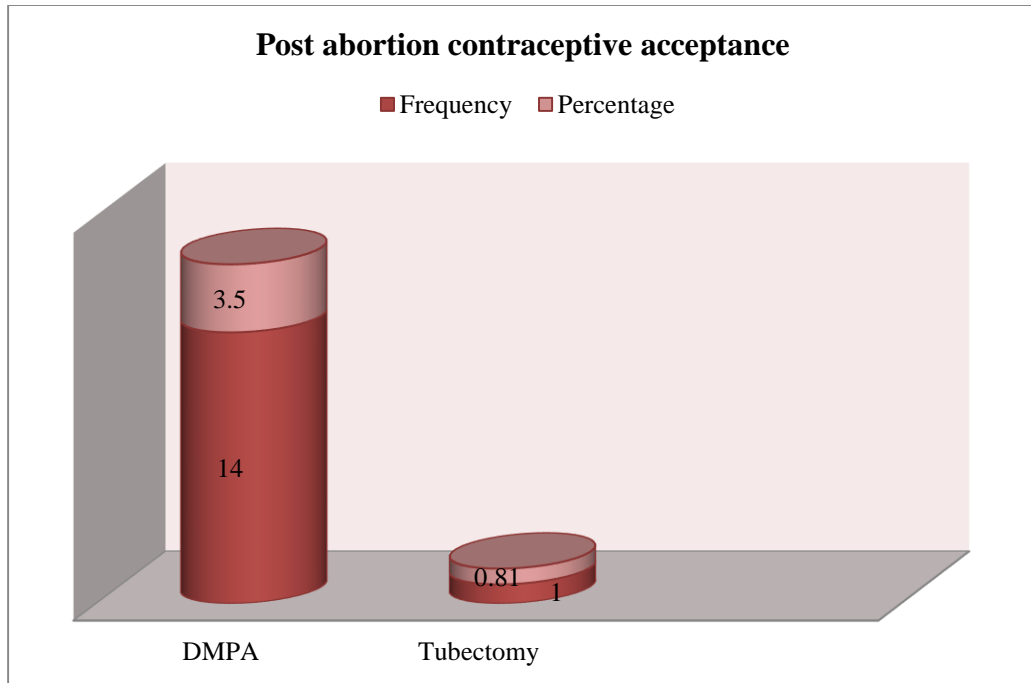
**Graph 1:**



Graph 2:



Graph 3:



Graph 4:

DISCUSSION

Unsafe second trimester abortions constitute a serious public health problem, they account for two-thirds of the five million estimated admissions to hospital annually for complications of unsafe abortion.⁷ The burden of unsafe second trimester abortion in our institute constitutes 16.22%, which is slightly lower than the national burden, may be because of under-reporting.

In our study unmarried women contributed for 6.3% only as compared to other studies where the proportion is very high, the reason that may be because daughters in our state are generally married off at an early age.^{5,8}

Unintended pregnancy was the major reason for termination among the women in our study, representing 84.55% of the cases, suggests a high unmet need for family planning which is slightly higher 24.8% in our state than unmet need of India.⁹ The reason for termination was probably sex preference in 15.44% cases similar as other studies.^{10,11} Majority were having 1 or 2 female child but no living son¹² and all of them had undergone second trimester ultrasound before abortion, although no confirmatory evidences like USG reports available at the time of admission. As per one review it is found that Chhattisgarh is in 3rd position after Rajasthan and Uttarakhand among EAG states regarding proportion of women who went for USG before abortion which can be indirect indicator for sex selection,^{13, 14} thus declining child sex ratio could be “Alarming Sign” for our state. According to figures from Census 2001 and 2011 there is

significant decline in sex ratio at birth (SRB) and child sex ratio in urban as well rural area of Chhattisgarh.⁵

Abortion providers 91.05% were mostly untrained, easily assessable health worker or quacks that indicates lack of awareness about safe abortion and abortion rights, limited access and poor quality of services, low cost, social stigma, gender role and norms. As per one study, about 30% of ever-married women have experienced spousal violence in Chhattisgarh.¹⁵ According to DLHS -3, of 251 PHC's, only 17(6.8%) lady medical officers were posted in the state whereas no lady medical officer was available in any of 16 PHC's of our district Bilaspur.^{9, 16}

When we compared different studies on safe abortion with our study it has been clearly observed that, haemorrhage, incomplete abortion, infection were significantly more common among women undergoing medical induction even when the procedure used is safe, the provider skilled and the quality of care high, this may be because abortion procedures and pregnancy itself are riskier as pregnancy progresses,^{17, 18, 19, 20} although uterine rupture and death were rare complications but more prevalent after medical induction than surgical evacuation.²¹

The percent of women practicing modern methods of contraception are significantly low in our area could be because improper counselling, which has been seriously neglected in India.^{5, 22}

CONCLUSION:

Even after 40 years following legalization of abortion, the right of abortion and MTP law including PCPNDT Act is little known to the females of our state. However measures to reduce unsafe abortion and its consequences include, strengthening of existing government health services, provision of drugs at low cost at primary health care centres specially in difficult to reach areas, improving access to family planning services, making policy to reduce sale of OTC drugs and most important is, to create awareness and to educate people. Improving access to 1st trimester abortion may reduce the need for second trimester abortion to some extent but declining child sex ratio could be an alarming sign for our state which needs immediate attention and action.

REFERENCES:

1. Unsafe abortions: global and regional estimates of the incidence of unsafe abortion and associated mortality in 2008.6th update. Geneva:
2. Lalitkumar S, Bygdeman M, Gemzell-Danielsson K. Mid-trimester induced abortion: A review. Human Reproduction Update. 2007; Vol.13:No.1pp37–52. Downloaded from <http://humupd.oxfordjournals.org/> by guest on July 22, 2015
3. Johnston H. B. Abortion practice in India: a review of literature. In: Johnston H. B., eds. Working Paper, Abortion Assessment Project. 1st ed. Mumbai: Centre for Enquiry into Health and Allied Themes (CEHAT); 2002: 23. Downloaded from www.commonhealth.in/safe_abortion/308,
4. S. S. Dalvie, "Second trimester abortions in India," *Reproductive Health Matters*, vol. 16, no. 31, pp. 37–45, 2008.
5. Annual Health Survey 2011-2012 fact Sheet, Chhattisgarh, Vital statistics division, Office of the Registrar General and Census Commissioner, India, New Delhi. Available at: www.censusindia.gov.in /Accessed 23 Aug 2014
6. Federation of Obstetric and Gynecological Societies of India (FOGSI) Consensus Statement on medical termination of pregnancy 2004. *The Journal of Obstetrics and Gynecology of India* January / February 2011.
7. Singh S. Hospital admissions resulting from unsafe abortion: estimates from 13 developing countries. *Lancet* 2006; 368:1887–92.
8. Cited in: Ravindran TKS. Gender gaps in research on abortion in India: a critical review of selected studies. Gender and Reproductive Health Research Initiative. New Delhi:CREA,2002
9. International Institute for Population Sciences (IIPS), 2010. District Level Household and Facility Survey (DLHS-3), 2007-08: India. Chhattisgarh: Mumbai: IIPS. Available at: <http://www.rchiips.org> Accessed 8 Nov 2014
10. Ganatra, B.R., S.S. Hirve and V.N. Rao. 2000. Sex-selective abortions: Evidence from a community-based study in western India. *Asia Pacific Population Journal*, 16(2): 109-24
11. Saha S, Duggal R, Mishra M. Abortion in Maharashtra: incidence, care and cost. In: Saha S, Duggal R, Mishra M., eds. Mumbai: Centre for Enquiry into Health and Allied Themes (CEHAT); 2004: 1-23.
12. Booth, B., M. Verma, R. Beri. 1994. Foetal sex determination in infants in Punjab, India: Correlation and implications. *British Medical Journal*, 309(6964): 1259-61.
13. Cited in: Bishnupada Sethi, Director, Census Operations Bhubaneswar. Marriage, Fertility and Abortion in Odisha as per the Annual Health Survey (ASH), Odisha Review: January 2014.
14. Santhya K.G., Verma S. Induced abortion: The Current Scenario in India, look back: looking for: A profile of sexual and reproductive health in India: 2004.
15. Galhotra A, Padhy G K, Pal AK , Giri A K, Nagarkar N M . Mapping the health indicators of Chhattisgarh: A public health perspective; *International Journal of Medicine and Public Health* Jan-Mar 2014: Vol 4; Issue 1.
16. K D Rao, et al: Which doctor for primary health care? Quality of care and non-physician clinicians in India, *Social Science and Medicine* 84(2013)30-34.
17. Ashok P W, Templeton A, Wagaaarachchi PT, et al, Midtrimester Medical termination of pregnancy: a review of 1002 consecutive case. *Contraception* 2004, 69 (1)51-58.
18. Dickinson JE, Misoprostol for second-trimester pregnancy termination in women with a prior cesarean delivery. *Obstet Gynecol.* 2005; 105: 352–356.
19. Niinimäki M, Suhonen S, Mentula M, et al. Comparison of rates of adverse events in adolescent and adult women undergoing medical abortion: population register based study. *BMJ* 2011; 342:d2111
20. Partha Mukhopadhyay et al: Second Trimester Abortion with Vaginal Misoprostol: Is There Any Advantages with Prior Mifepristone Priming? *Journal of South Asian Federation of Obstetrics and Gynaecology*, January- April2012; 4(1):25-27
21. Grossman D, Blanchard K, Blumenthal P, "Complications after Second Trimester Medical Abortion", *Reproductive Health Matters*, 2008>16>31 Supplement 173-182. Download from <http://www.infona.pl/resource/bwmetal.element>.
22. Ganatra BR, Hirve SS, Karvande S, Garda L, Rao VN. Induced Abortions in Rural Western Maharashtra. In: Koenig MA, Jejeebhoy S, Cleland JC, Ganatra BR, eds. *Reproductive Health in India: New Evidence*. 1st ed. New Delhi: Rawat Publications; 2008: 281-302.