RESEARCH ARTICLE

Mifepristone for Termination of Intrauterine Fetal Death

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Received on: 21 August 2023; *Accepted on*: 02 August 2024; *Published on*: 19 November 2024

Abstract

Aim: Various medical methods are available to manage intrauterine fetal death (IUFD). The current study aimed to evaluate the effectiveness of mifepristone as a termination method for IUFD.

Methods: This prospective observational study included 128 patients with IUFD from the Department of Obstetrics and Gynecology, Chattogram Medical College Hospital (CMCH), Bangladesh, from January 2021 to June 2021. The primary induction method was Mifepristone 200 mg for 8 hours of six doses. Outcome measures included successful vaginal delivery within 72 hours of the onset of induction, maternal complications, and mifepristone's side effects.

Results: More than half of the women (52.3%) were 20–29 years. Around 56.3% of the participants were multigravida, and 40.6% were gestational age 24–32 weeks. Ten women (7.8%) reported a previous history of uterine surgery. Mifepristone successfully induced labor as a primary method in 89 (69.5%) cases. In the other cases, secondary induction methods (misoprostol – 18.8%; oxytocin – 10.9%) were needed. Successful delivery within 72 hours was met in 61.7% of cases, and in 35.2% of cases, vaginal delivery occurred after 72 hours of induction. A psychological upset was the most frequent (21.9%) maternal complication, followed by fever (8.6%) and the need for blood transfusion (7.8%).

Conclusion: Mifepristone is very effective and safe in the termination of IUFD. However, few cases need augmentation with oxytocin and/or misoprostol.

Keywords: Induction of labor, Intrauterine fetal death, Mifepristone.

Journal of South Asian Federation of Obstetrics and Gynaecology (2024): 10.5005/jp-journals-10006-2520

Introduction

Motherhood is a delightful gift. But, intrauterine fetal death (IUFD) brings gloominess to a joyful life of a woman. Fetal death before 20 weeks of gestation is called a spontaneous miscarriage, and those that occur after 20 weeks or more than 500 gm weight constitute stillbirth.[1] In developing countries like Bangladesh, fetal survival is difficult in less than 28 weeks or 1000 gm. So, for Bangladesh, fetal death at or after 28 weeks gestation or 1000 gm can be counted as IUFD.[2,3] It is estimated to occur in 1% of all pregnancies and 1 in 200 babies born dead.[4,5] In 2015, 2.6 million third-trimester stillbirths occurred globally, most reported from low and middle-income countries.[6]

When IUFD occurs, spontaneous expulsions may take several weeks. Intrauterine fetal death poses psychological distress and moderates severe maternal anxiety if labor fails to start 24 hours after diagnosis.[7] Also, IUFD can lead to serious maternal complications, including coagulopathy, if left undelivered.[8,9] Therefore, early recognition of IUFD and induction of labor (IOL) is crucial to prevent life-threatening complications.[10,11] Social and maternal desires and a moderate risk of maternal complications compel caregivers to induce labor soon after diagnosis, aiming for safe and speedy delivery. Earlier, expectant management was an evidence-based option. With it, 75% of women delivered spontaneously within 14 days and 90% within 21 days after demise.[9]

For IOL, previously oxytocin and later prostaglandin were used in IUFD.[4,12,13] With the advent of newer agents for adequate cervical ripening and uterine contraction, the management of stillbirth has become more proactive.[14] Mifepristone is a new class of pharmacological agents for this purpose. It is administered orally, has rapid absorption and a long half-life of 25–30 hours, undergoes first-pass metabolism in the liver, and reaches a dose of independent peak concentration within 1–2 hours when using a 100 mg or greater dose.[15–18] A total of 200 mg of oral mifepristone followed by 24–48 hours later a loading dose of 800 µg misoprostol and later an additional 400 µg misoprostol vaginally every 3 hours until the expulsion in women with abortion is recommended by WHO, SFP, and ACOG. It is the most effective regimen resulting in a shorter time of expulsion.[19–22] Data from clinical trials to support its use to induce labor in later gestation is lacking. Several observational and non-comparative studies have suggested using mifepristone and misoprostol in combination. The combination shortens the induction-delivery interval to 7–10 hours in IUFD.[23–25] Mifepristone use before misoprostol for termination of pregnancy in a few RCT-proven benefits.[26] The RCOG provides a "Group D recommendation"

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How to cite this article: Rashid F, Mazumder U, Shahnaz S, *et al*. Mifepristone for Termination of Intrauterine Fetal Death. J South Asian Feder Obst Gynae 2024;16(6):662–667.

Source of support: Nil

Conflict of interest: None

for combined mifepristone and prostaglandin preparation as a first-line intervention for IOL in IUFD.[27] But, data about the sole use of mifepristone as a primary induction method for IUFD were scarce. Therefore, the current study aimed to explore the efficacy and safety of mifepristone as a primary induction method.

Methods

Patients

This prospective observational study included 128 patients with IUFD from the Department of Obstetrics and Gynecology, Chattogram Medical College Hospital, from January 2021 to June 2021. Inclusion criteria for all patients were: women with confirmed IUFD by ultrasonography with gestational age >24 weeks; without labor pain; involving gravida four or less; with or without a history of previous one or two cesarean sections (CS) and; was willing to undergo medical management and understood the regimen. The patients were ineligible for the study if they met the criteria as follows: women in labor; women with gross cephalo-pelvic disproportion (or big baby with intrauterine death), placenta previa, sepsis, coagulation disorder, grand multipara; previous history of three or more CS; need emergency surgical intervention and; known hypersensitivity to mifepristone.

Data Collection

Relevant demographic and clinical data were collected by interviewing, clinical examination, and investigations like hemogram, blood group, urine routine and microscopy, liver and kidney function test, and coagulation profile. Data on maternal and gestational age, parity and previous deliveries, pregnancy complications, and cervix status were collected from medical records. The gestation period was estimated by the last menstrual period, clinical examination, and confirmed by USG scan.

Treatment

After admission, the patients were given a tablet of mifepristone 200 mg orally thrice a day, a maximum of six doses (Max – 1200 mg) for 48 hours per ongoing hospital protocol. The next dose was omitted if sufficient uterine contractions or cervical dilatation of ≥2.5 cm was achieved. If required, augmentation was done using oxytocin or misoprostol at the attending physician's discretion. Patients with no uterine contractions or who did not progress into labor within 72 hours of the onset of induction were regarded as failures. The secondary methods of IOL [by misoprostol or intracervical foley catheter (ICFC) or oxytocin in standard dose] were started 24 hours after the last dose of mifepristone if deemed necessary. Augmentation was done when the cervix was dilated >3 cm with misoprostol or oxytocin if required. Pethidine, nalbuphine (nalbun), and tiemonium (visceralgine) were analgesics.

They were closely monitored by maternal pulse, blood pressure, temperature, uterine contractions, labor progression, and induction-delivery interval. Information on the induction method, misoprostol dose, labor progression, and the need for oxytocin was recorded. Additionally, analgesic requirements retained placenta removal, and any delivery complications were recorded. A cervix assessment was carried out by Bishop scoring.

The primary outcome was successful vaginal delivery within 72 hours of the onset of induction. Patients were closely observed for 24 hours following delivery for evidence of complications like PPH, infection, DIC, and retained placenta. Side effects and complications were, e.g., such as nausea, vomiting, fever, diarrhea, cesarean deliveries, bleeding after delivery, trauma, need for blood transfusion, and manual removal of placenta.

Table 1: Sociodemographic characteristics of the patients ($N = 128$)

Variables	*Frequency*	*Percentage*	*p-value**
Age-groups, years			
<20	24	18.8	<0.001
20–29	67	52.3	
30–39	34	26.6	
>40	3	2.3	
Occupation			
Housewife	91	71.1	<0.001
Service	17	13.3	
Student	11	8.6	
Other	9	7.0	
Education			
Illiterate	43	33.6	<0.001
Primary	51	39.8	
SSC	27	21.1	
HSC and above	7	5.4	
Socioeconomic class			
Lower class	71	55.5	<0.001
Lower middle class	51	39.8	
Upper middle class	6	4.7	
Residential location			
Rural	100	78.1	<0.001
Urban	28	21.9	

HSC, higher secondary certificate; SC, secondary school certificate. *One sample Chi-square test

Statistical Analysis

The SPSS V.23.0 software was used for the statistical analyses. The induction to delivery time interval was described as the median and interquartile range (IQR). All other variables were categorized and expressed as frequency and percentage. One sample Chi-square test was used to see whether the categories of the categorical variables were equally distributed. The Mann–Whitney *U* test used Fisher's exact test for between-group categorical and continuous data comparisons. Statistical significance was concluded if a *p*-value <0.05 was presented in the corresponding analysis.

Results

This prospective study included 128 women. Table 1 depicts that a significantly higher proportion of the women (52.3%) was 20–29 years of age, followed by 26.6% in the 30–39 age-group. Most participants were homemakers, and only 13.3% reported being employed outside. About 80% of the participants were from rural areas; most were illiterate or had primary education. Likewise, more than half of the participants were from a low socioeconomic class (Table 1).

The obstetrical parameters of the participants are shown in Table 2. The table depicts that more than half (56.3%) of the participants were multigravidas, and 40.6% were in the gestational age of 24–32 weeks. In 39.1% of the cases, pregnancy was

Table 2: Obstetrical characteristics (*N* = 128)

Variables	*Frequency*	*Percentage*	*p-value*[*]
Parity			
0	33	25.8	0.167
1	50	39.1	
Two and more	45	35.2	
Gravidity			
Primi	56	43.8	<0.001
Multi	61	47.7	
Grand multi >5	11	8.6	
Gestational age			
24–32 weeks	52	40.6	<0.001
33–36 weeks	40	31.3	
37–40 weeks	22	17.2	
40 weeks	14	10.9	
Planning of pregnancy			
Planned	78	60.9	0.017
Unplanned	50	39.1	
Antenatal check-up			
Regular	45	35.2	<0.001
Irregular	71	55.5	
No	12	9.4	
Taking anti-hypertensive	24	18.8	<0.001
H/O bad obstetric history	25	19.5	<0.001
H/O D&C	3	2.3	<0.001
H/O CS	7	5.5	<0.001

CS, cesarean section; D&C, dilatation and curettage. [*]One sample Chi-square test

unplanned, and more than half reported having irregular or no ANC. Ten women (7.8%) reported a previous history of uterine surgery, either in the form of D&C (2.3%) or CS (5.5%).

Intracervical Foley catheter was used only as a secondary induction method in one patient. Eighty-nine (69.5%) of the included women had successful IOL; others required secondary methods of induction by misoprostol 24 (18.8%) and oxytocin 14 (10.9%). Oxytocin was used to augment labor in 82 (64.1%) and misoprostol in 23 (18.8%) of patients, and the remaining 23 (18%) did not require augmentation (Table 3).

Most (79.7%) patients required six doses of mifepristone (Table 4).

Most of the patients required analgesics in injectable form in the study (Table 5). Four patients (3.1%) needed cesarean section due to failed induction. In routine monitoring of the subjects, maternal complications were very few in the studied patients. Fever was recorded in (8.6%) of the patients, and uterine hyperstimulation was recorded in one case only. Ten patients required blood transfusion, and only one subject transfusion needed more than one unit. Eighty (62.5%) cases had no adverse events among Mifepristone users. Headache, vomiting, shivering, and allergy were the side effects observed in the study.

The study's median induction to the delivery interval was 62.0 hours (IQR: 32.0–87.0). However, the interval was significantly longer

Table 3: Primary and secondary methods of induction and augmentation of labor (*N* = 128)

Methods of induction and augmentation	*Frequency*	*Percentage*
The primary method of induction		
Mifepristone	128	100.0
Secondary methods of induction		
Not necessary	89	69.5
Misoprostol	24	18.8
Oxytocin	14	10.9
Intracervical Foley catheter	1	0.8
Method of augmentation		
Not necessary	23	18.0
Misoprostol	23	18.0
Oxytocin	82	64.1

Table 4: Total dose of mifepristone needed (*N* = 128)

Total dose	*Frequency*	*Percentage*
6	102	79.7
5	3	2.3
4	21	16.4
<3	2	1.6

Table 5: Safety, tolerance, and outcome of the induction methods in the studied patients (*N* = 128)

Parameters	*Frequency*	*Percentage*
Analgesic required		
Pethidine	106	82.8
Nalbun	1	0.8
Visceralgine	1	0.8
Primary outcome		
Vaginal delivery within 72 hours	79	61.7
Vaginal delivery after 72 hours	45	35.2
CS	4	3.1
Secondary outcome (maternal complication and morbidity)		
Fever	11	8.6
Hyperstimulation	1	0.8
Psychological upset	28	21.9
Sepsis	2	1.6
Blood transfusion needed		
One unit	9	7.0
Four units	1	0.8
Safety outcome (side effect of mifepristone)		
Shivering	11	8.6
Vomiting	12	9.4
Headache	20	15.6
Allergy	5	3.9
No side effects	80	62.5

Table 6: Induction to the delivery interval in the study (*N* = 128)

	Induction to the delivery interval in hours	
Induction methods	*Median*	*IQR*
Overall (*n* = 128)	62.0	32–87
Only mifepristone (*n* = 89)	52.0	27.5–74.8
Mifepristone + misoprostol (*n* = 24)	102.0	73.5–117.5
Mifepristone + oxytocin (*n* = 14)	76.0	42.3–103.0

Table 7: Need for a secondary method of induction in the unscarred and scarred uterus (*N* = 128)

H/O previous uterine surgery	*The secondary method of induction needed*		*p-value*
	No	*Yes*	
No (*n* = 118)	83 (70.3)	35 (29.7)	0.492*
Yes (*n* = 10)	6 (60.0)	4 (40.0)	

*Fisher's exact test

Table 8: Need for labor augmentation in the unscarred and scarred uterus (*N* = 128)

H/o previous uterine surgery	*Labor augmentation needed*		*p-value*
	No	*Yes*	
No (*n* = 118)	21 (17.8)	97 (82.2)	1.0*
Yes (*n* = 10)	2 (20.0)	8 (80.0)	

*Fisher's exact test

among the patients requiring secondary induction methods than patients needing mifepristone only (Table 6).

Table 7 depicts that 7.8% of patients had a history of previous uterine surgery. A secondary method of IOL has been required in 40% of women with scarred uterus compared with 29.7% of subjects without uterine surgery history. However, this difference failed to reach statistical significance ($p = 0.492$).

Table 8 depicts that most subjects, irrespective of their status of previous uterine surgery, needed labor augmentation.

Discussion

For IOL in IUFD, various studies have evaluated the effectiveness of mifepristone in combination with prostaglandins analogs since 1985. The current study investigated the efficacy and safety of mifepristone in terminating IUFD among 128 cases.

Over two-thirds of IUFD had successful (primary) induction, and about one-third required secondary induction. A double-blind placebo-controlled multi-center study among 94 women with IUFD demonstrated the efficacy of mifepristone in the third trimester with a similar doses schedule, and the success rate was 63%.[28,29]

In the current study, induction to delivery interval (IDI) time was 62 hours, and with only mifepristone, 52 hours. Our findings agreed with Ahuja et al., where the IDI time in the mifepristone group was 48.62 ± 25.1 hours.[30] In contrast, panda et al. reported a shorter IDI time (8.46 hours) in the combined mifepristone and misoprostol group.[31] This variation of the IDI might be due to variations in parity, gestational age, pre-induction Bishop score, the route, and the drug's dose.

In this study, most cases required augmentation either with misoprostol or oxytocin. Only about one-fifth of women did not require any augmentation. Similarly, a study that used mifepristone and misoprostol combinations for IOL showed that 46% of women did not require augmentation with misoprostol.[32] In a study by Arora et al., augmentation with oxytocin is required in 20.5% of women.[33] The result might be due to the smaller sample size.

In the current study, the incidence of successful vaginal delivery was 97% (two-thirds within 72 hours and one-third beyond 72 hours). Only four patients needed termination by CS due to failed induction. The result is comparable to a study by Chaudhuri and Datta, where the successful vaginal delivery rate was (92.5%).[34] But a lower rate of vaginal delivery was observed in other studies.[30,31,35] This might be due to managing those patients in the in-patient department. If the primary method failed, a secondary method of induction was given. Augmentation was given early after the initiation of labor pain. In agreement with the previous study, in this study, around 80% of women needed six doses (1200 mg) of mifepristone.[29,33]

In the current study, three-fifth of women had reported no side effects. Commonly encountered side effects were mild shivering, vomiting, headache, and allergic reaction. Though the complaints were mild, the incidence was comparatively higher than in the study report of Ahuja and Dahiya where the reported side effects were nausea, vomiting, fever, and shivering, and the side effect was 3.2% in only the mifepristone group and 70% in mifepristone followed by misoprostol group.[30] This higher rate of side effects in the current study might be due to using augmentation by misoprostol in three-fifths of women with IUFD. Arora et al. reported no life-threatening complications with mifepristone alone, even in IUFD with a scarred uterus.[33]

Sepsis developed in two patients, which were managed by conservative treatment. Tachysystole was found in one case following the secondary induction method with misoprostol, which required CS.

This study had some limitations: a selection bias might influence the findings as a single-center study, clinicians have used different dose schedules of mifepristone, and as the sample size is small, data might not represent the whole population.

Conclusion

Mifepristone is effective in terminating IUFD and relatively safe in both scarred and non-scarred uterus. Mifepristone can be used on an outpatient basis and thereby reducing the hospital costs. The IDI is also acceptable. However, augmentation with oxytocin or misoprostol might be needed to terminate IUFD. The failure of onset of labor was few and rescued by a secondary induction method like misoprostol or oxytocin. Nevertheless, a multicenter randomized controlled trial is desirable to determine the most cost-effective induction method in IUFD for our setting.

Disclosure

A grant from planning and monitoring and research operational plan-2020–2021 by the Ministry of Health and family welfare, Bangladesh.

Data Availability Statement

The corresponding author's data supporting this study's findings are available upon reasonable request.

Ethical Approval

The Ethical Review Committee of Chittagong Medical College approved this study.

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References

1. Belkin T, Wilder J. Management options for women with midtrimester fetal loss: A case report. J Midwifery Women Health 2007;52(2):164–167. DOI: 10.1016/j.jmwh.2006.08.015.
2. Roy RR, Mukhopadhyay A, Mukherjee K. Unexplained stillbirth. In: Mukherjee CG, Chakravarty S, Pal B, editors. Current Obstetrics and Gynaecology, 1st ed. New Delhi: Jaypee Publishers; 2007, pp. 147–145.
3. Lahra MM, Gordon A, Jeffery HE. Chorioamnionitis and fetal response in still birth. Am J Obstet Gynecol 2007;196(3):229–232. DOI: 10.1016/j.ajog.2006.10.900.
4. Gomez Ponce de León R, Wing D, Fiala C. Misoprostol for intrauterine fetal death. Int J Gynecol Obstet 2007;99(Suppl 2):S190–S193. DOI: 10.1016/j.ijgo.2007.09.010.
5. Confidential Enquiry into Maternal and Child Health (CEMACH). Perinatal Mortality 2007: United Kingdom. CEMACH: London, 2009. Available at: http://www.cmace.org.uk/getattachment/1d2c0ebcd2aa-4131-98ed-56bf8269e529/PerinatalMortality2007.aspx.
6. Lawn JE, Blencowe H, Waiswa P, et al. Stillbirths: Rates, risk factors, and acceleration towards 2030. Lancet 2016;387(10018):587–603. DOI: 10.1016/S0140-6736(15)00837-5.
7. Parasnis H, Raje B, Hinduja IN. Relevance of plasma fibrinogen estimation in obstetric complications. J Postgrad Med 1992;38(4):183–185. PMID: 1307590.
8. Fletcher HM, Wharfe G, Simeon D, et al. Introduction of labour with intravaginal misoprostol versus dinoprostone in intrauterine death: A retrospective study. J Obstet Gynecol 1996;16(3):155–158. DOI: 10.3109/01443619609004091.
9. Silver RM. Fetal death. Obstet Gynecol 2007;109(1):153–167. DOI: 10.1097/01.AOG.0000248537.89739.96.
10. Rådestad I, Steineck G, Nordin C, et al. Psychological complications after stillbirth – influence of memories and immediate management: Population-based study. BMJ 1996;312(7045):1505–1508. DOI: 10.1136/bmj.312.7045.1505.
11. Tempfer CB, Brunner A, Bentz EK, et al. Intrauterine fetal death and delivery complications associated with coagulopathy: A retrospective analysis of 104 cases. J Womens Health 2009;18(4):469–4674. DOI: 10.1089/jwh.2008.0938.
12. Gomez Ponce de León R, Wing DA. Misoprostol for termination of pregnancy with intra-uterine fetal demise in the second and third trimester of pregnancy – A systematic review. Contraception 2009;79(4):259–271. DOI: 10.1016/j.contraception.2008.10.009.
13. Gawron LM, Kiley JW. Labor induction outcomes in third-trimester stillbirths. Int J Gynaecol Obstet 2013;123(3):203–206. DOI: 10.1016/j.ijgo.2013.06.023.
14. Teutsch G, Philibert D. History and perspectives of antiprogestins from the chemist's point of view. Hum Reprod 1994;9 Suppl 1:12–31. DOI: 10.1093/humrep/9.suppl_1.12.
15. Bygdeman M, Swahn ML. Progesterone receptor blockage, effect on uterine contractility and early pregnancy. Contraception 1985;32(1):45–51. DOI: 10.1016/0010-7824(85)90115-5.
16. Heikinheimo O. Clinical pharmacokinetics of mifepristone. Clin Pharmacokinet 1997;33(1):7–17. DOI: 10.2165/00003088-199733010-00002.
17. WHO Scientific Group. WHO Technical Report Series. WHO. Vol. 871, Geneva: WHO, 1997.
18. United Kingdom Multicentre Trial. The efficacy and tolerance of mifepristone and prostaglandin in first-trimester termination of pregnancy. Br J Obstet Gynaecol 1990;97(6):480–486. DOI: 10.1111/j.1471-0528.1990.tb02516.x.
19. Skjoldebrand-Spare L, Toljvenstam T, Papadogiannakis N, et al. Parvovirus B19 infection association with third-trimester intrauterine foetal death. BJOG 2000;107(4):476–480. DOI: 10.1111/j.1471-0528.2000.tb13265.x.
20. Ranganath S, Shankaregowda HS. Medical Management of Late Intrauterine Death Using a Combination of Mifepristone and Misoprostol [MS thesis]. Bangalore: The Rajiv Gandhi University of Health Sciences; 2006.
21. WHO | Safe abortion: Technical and policy guidance for health systems [Internet]. WHO. [cited 2014 Sep 16]. Available from: http://www.who.int/reproductivehealth/publications/unsafe_abortion/9789241548434/en/.
22. Sharma D, Singhal SR, Poonam, et al. Comparison of mifepristone combination with misoprostol and misoprostol alone in the management of intrauterine death: Condensation – Misoprostol and mifepristone combination is more effective than misoprostol alone in the management of intrauterine death. Taiwan J Obstet Gynecol 2011;50(3):322–325. DOI: 10.1016/j.tjog.2011.07.007.
23. Jannet D, Aflak N, Abankwa A, et al. Termination of 2nd and 3rd-trimester pregnancies with mifepristone and misoprostol. Eur J Obstet Gynecol Reprod Biol 1996;70(2):159–163. DOI: 10.1016/s0301-2115(95)02593-6.
24. Wagaarachchi PT, Ashok PW, Narvekar NN, et al. Medical management of late intrauterine death using a combination of mifepristone and misoprostol. BJOG 2002;109(4):443–447. DOI: 10.1111/j.1471-0528.2002.01238.x.
25. Fairley TE, Mackenzie M, Owen P, et al. Management of late intrauterine death using a combination of mifepristone and misoprostol—the experience of two regimens. Eur J Obstet Gynecol Reprod Biol 2005;118(1):28–31. DOI: 10.1016/j.ejogrb.2004.04.001.
26. Nzewi C, Arakliti G, Narvekar N. The use of mifepristone and misoprostol in the management of late intrauterine fetal death. Obstetrician and Gynaecologist 2014;16(4):233–238. DOI: 10.1111/tog.12145.
27. Royal College of Obstetricians and Gynaecologists (RCOG). Late intrauterine fetal death and stillbirth. London (UK): Royal College of Obstetricians and Gynaecologists (RCOG); 2010. p. 33. (Green-top guideline; no. 55).
28. Cabrol D, Bouvier D'Yvoire M, Mermet E, et al. Induction of labor with mifepristone (RU 486) after intrauterine fetal death. Lancet 1985;2(8462):1019. DOI: 10.1016/s0140-6736(85)90575-6.
29. Cabrol D, Dubois C, Cronje H, et al. Induction of labor with mifepristone (RU 486) in intrauterine fetal death. Am J Obstet Gynecol 1990;163(2):540–542. DOI: 10.1016/0002-9378(90)91193-g.
30. Ahuja N, Dahiya P. A comparative study of mifepristone alone versus mifepristone and misoprostol for induction of labor in intrauterine fetal death. Indian J Obstet Gynecol Res 2016;3(4):348–351. Available from: https://www.ijogr.org/article-details/3111.
31. Panda S, Jha V, Singh S. Role of combination of mifepristone and misoprostol verses misoprostol alone in induction of labour in late intrauterin fetal death: A prospective study. J Family Reprod Health 2013;7(4):177–179. PMID: 24971122.
32. Mandade K, Bangal VB. A prospective comparative study to evaluate the efficacy and safety of mifepristone with misoprostol over misoprostol alone in induction of labour. Int J Reprod Contracept

Obstet Gynecol 2016;5(12):4321–4328. DOI: 10.18203/2320-1770.ijrcog20164336.
33. Arora R, Patel PB, Dabral A, et al. Use of Mifepristone for termination of intrauterine fetal demise (IUFD) in previously scarred uterus in later half of pregnancy (>20 weeks). Int J Reprod Contracept Obstet Gynecol 2018;7(7):2668–2671. DOI: 10.18203/2320-1770.ijrcog20182750.
34. Chaudhuri P, Datta S. Mifepristone and misoprostol compared with misoprostol alone for induction of labor in intrauterine fetal death: A randomized trial. J Obstet Gynaecol Res 2015;41(12):1884–1890. DOI: 10.1111/jog.12815.
35. Padayachi T, Moodley J, Norman RJ. Termination of pregnancy with mifepristone after intrauterine fetal death. S Afr Med J 1989;75(11):540–542. PMID: 2658142.