INTRAUTERINE VERSUS SUBLINGUAL MISOPROSTOL FOR THE CONTROL OF INTRA AND POSTOPERATIVE BLEEDING DUE TO ATONIC UTERUS IN CESAREAN DELIVERY

By

Ahmed Mahrous Bedeir, Mostafa Hussein Hegab and Attia Mohamed Attia

Obstetrics and Gynecology Department, Faculty of Medicine, Al-Azhar University, Egypt

Corresponding Author: Ahmed Mahrous Bedeir,

E-mail: dr.ahmedbedeir2223@gmail.com

ABSTRACT

Background: Postpartum hemorrhage (PPH) and intra-operative blood during cesarean delivery is a major concern to all obstetricians, misoprostol is a prostaglandin E1 analogue with good uterotonic properties and has been evaluated for both prevention and treatment of postpartum haemorrhage.

Objective: To compare between intrauterine and sublingual misoprostol for the prevention of intra and postoperative uterine atonic bleeding in cesarean delivery.

Patients and methods: This study was a randomized controlled clinical trial. This study was carried out at conducted in the operative rooms of Bab Al-Sharia Maternity Hospital, Obstetrics and Gynecology Department, Al-Azhar University, from July 2020 till January 2021. Two hundred pregnant women were recruited from the operative rooms of Bab- Al Sharia Maternity Hospital, Obstetrics and Gynecology Department, Al-Azhar University.

Result: There were insignificant difference between both groups as regards age, gravidity, parity, abortion, gestational age (in weeks), risk factor and previous surgery and side effects. There was significant difference between both groups as Blood loss (Intra-operative, Post-operative and overall.

Conclusion: Intrauterine misoprostol (600 mg), is effective in decreasing the incidence of PPH and reducing the amount of postpartum blood loss. Also, it reduced the need for blood transfusion, the extra ecbolics, and additional intervention and with less reduction in postoperative hemoglobin (HB) level and hematocrit level when compared to oxytocin alone.

Keywords: Cesarean delivery, Misoprostol, Sublingualmisoprostol.

INTRODUCTION

Misoprostol (15-deoxy-16-hydroxy-16-methyl prostaglandin E1) is a synthetic prostaglandin E1 analogue. Misoprostol acts via interacting with prostaglandins E (PGE) receptors. There are four isoforms of the PGE receptor (EP1–4), which act through different intracellular pathways *(Arrowsmith et al., 2010)*.

The uterus has two distinct nervous pathways. Parasympathetic fibers (Frankenhäuser plexus, S2 to S4) provide innervation to the cervix and lower portion of the uterus, and sympathetic fibers (ovarian nerve plexus, T10 to L1)

provide innervation to the fundus of the uterus *(Xin et al., 2019).*

Theoretically, uterine contractions can be achieved through pharmacological stimulation of these sources using misoprostol for control of atonic postpartum hemorrhage *(Marjoribanks et al., 2010).*

For postpartum hemorrhage prevention (off-label use) sublingual 600 mcg as a single dose administered immediately after delivery (onset of action: 11 min, duration of action: 3 hours) *(Tang et al., 2010).*

Many of the global gains in reducing maternal mortality can be attributed to developments in preventing and treating postpartum hemorrhage (PPH). In fact, the biggest absolute reduction was in maternal deaths due to hemorrhage *(Kassebaum et al., 2014).*

PPH is often associated with the failure of the uterus to contract after delivery and categorized as blood loss of 500 mL or more following vaginal delivery or 1,000 mL after cesarean delivery *(Mousa andAfirevic 2010).*

PPH is categorized as early if it occurs within 24 hours of delivery and late if excessive blood loss occurs at 24 hours or more after delivery *(Evensen et al., 2017).*

The reality is that most cases are primary PPH and the time from beginning to death is considerably shorter than other major obstetric complications. Two factors have been identified as significantly affecting the potential for death from PPH *(Bazirete et al., 2020).* First, the initial hematocrit level of a woman affects her survival rate from PPH *(Karoshi and Keith, 2012).*

The second factor that has been identified as contributing to mortality rates from PPH has more levers for influence, as it relates to access to a hospital with functioning facilities for the management of PPH, including blood banks and staff trained to diagnose and treat PPH *(Panyapin and Deoisres, 2020).*

Although effective tools for the prevention and treatment of PPH are available, most are not feasible or available for use in the resource-poor countries, where many births still occur at home with untrained birth attendants *(Karoshi and Keith, 2012).*

The aim of the present study was to compare between intrauterine and sublingual misoprostol for the prevention of intra and postoperative uterine atonic bleeding in cesarean delivery.

PATIENTS AND METHODS

This study was a randomized controlled clinical trial. This study was carried out at conducted in the operative rooms of Bab Al-Sharia Maternity Hospital, Obstetrics and Gynecology Department, Al-Azhar University, from July 2020 till January 2021. Two hundred pregnant women were recruited from the operative rooms of Bab- Al Sharia Maternity Hospital, Obstetrics and Gynecology Department, Al-Azhar University.

Inclusion criteria: Pregnant women aged 20–40 years, past history of PPH, failed trial of induction and high risk group women with noticeable factors: Twins, gestational DM, polyhydramnios, LFD and delivery under spinal

Exclusion criteria: Antepartum hemorrhage in this pregnancy, preterm or post-term delivery, severe anemia with HB <8mg/dL, history of preexisting maternal hemorrhagic conditions such as factor 8 or 9 deficiency or von Willebrand's disease and women with placenta Previa.

Sample size: Two hundred females with pregnancies.

Sampling technique: systematic random sampling technique was used.

Randomization: Computer-generated randomization schedules was generated and placed in sequentially numbered sealed opaque envelopes. Block randomization with a block size of four was used with a 1:1 ratio of both groups. Women were recruited, gave consent and opened the randomization envelopes in early labor. Also, the women were recruited before revealing the allocation. Sealed opaque envelope method was used for the allocation. The allocation was blinded to both recruiter and participant.

All patients were subjected to the following:

1. **Detailed personal, obstetric and medical history including:** Personal history including age, smoking and level of education. Obstetric history including gravidity, parity, number of abortions, modes of delivery in previous pregnancies, first day of the last normal menstrual period and the gestational age, onset, duration and frequency of labor pains, urinary symptoms (dysurea, frequency, urgency), vaginal discharge (color, itching).

Medical history including Present or Past history of any chronic illnesses (renal, hypertensive, diabetics, hepatic, cardiac,….).

2. **Examination:** Vital signs: Blood pressure, pulse and temperature, Weight, height, BMI and Abdominal examination for assessment of fundal level and fetal heart sounds.

Abdominal palpation to detect uterine activity (frequency, duration and strength), assess fetal size and presentation.

Assessment of contraction done to diagnose threatened preterm birth (Contractions must be of four in 20 minutes or eight in 60 minutes each last 30 seconds or more with cervical changes (dilatation ≤ 3 cm, effacement ≤ 80%).

Vaginal Examination: Digital vaginal examination to assess degree of cervical dilatation, effacement and fetal presentation were initially recorded

3. **Assessment of fetal well-being:** Pelvic ultrasound for assessment of amniotic fluid index and umbilical artery Doppler, assessment of estimated fetal weight. CTG - FHR pattern and evidence of uterine activity.

4. **Lab assessment:** All investigations obtained according to standard protocol of PTL in our hospital including complete blood count, CRP and grouping, liver enzymes, kidney functions, random blood sugar, hemoglobin (HB) and hematocrit levels was made before and 24 h after delivery.

Intervention: The patients (200 pregnant women) were divided into equal two groups:

Group A: women to whom three tablets (600 mg) of misoprostol (Misotac®, Sigma, SAE, Egypt) was administered sublingually after delivery of the placenta.

Group B: women to whom three tablets (600 mg) of misoprostol (Misotac®, Sigma, SAE, Egypt) was placed intrauterine (fundal and near to right cornu due to peacemaker of the uterus) after delivery of the placenta and swabbing the cavity, the surgeon placed tablets in the uterine cavity at the fundus while suturing the first layer of the uterus.

For each patient, the amount of blood loss was estimated using the standardized visual estimation method and corrected by calculating the volume of blood loss during CS delivery and 6 h postoperatively. The whole blood loss equals the total loss of blood during CS delivery which was calculated by adding the volume of the suction bottle to that blood-soaked sponges (weighting method), all these was added to the volume of blood loss after CS which was measured by using blood collection drape. All women were followed up postoperatively for 24 h then dismissed.

Outcome measures: The primary outcome measure was the estimation of the amount of blood loss during and after cesarean delivery following administration of intrauterine and sublingual misoprostol and calculation of

incidence of PPH (>1000 ml blood loss) within the first 6 h of labor in both groups.

The secondary outcome measures was the need for blood transfusion, the need for any additional ecbolic drugs, and the changes in hematocrit and HB in both groups after delivery, and the incidence of side effects.

Ethical committee:

An informed verbal consent from parents of the participants was taken and confidentiality of information was assured. Permission from the faculty of medicine ethical committee was also obtained and approval from institutional review board was taken.

Statistical analysis:

Data were fed to the computer and analyzed using IBM SPSS software package version 20.0. (Armonk, NY: IBM Corp) Qualitative data were described using number and percent. The Kolmogorov-Smirnov test was used to verify the normality of distribution Quantitative data were described using range (minimum and maximum), mean, standard deviation, median and interquartile range (IQR). Qualitative data were represented as frequencies and relative percentages. Chi square test ($\chi 2$) to calculate difference between two or more groups of qualitative variables. Independent samples t-test was used to compare between two independent groups of normally distributed variables (parametric data). P value < 0.05 was considered significant.

RESULTS

There was insignificant difference between both groups as regards age **(Table 1)**.

Table (1): Comparison between the two studied groups according to age

Age (years)	Group A (n = 100)	Group B (n = 100)	t	p
Min. – Max.	20.0 – 35.0	20.0 – 35.0		
Mean ± SD.	26.93 ± 4.36	27.80 ± 4.65	1.365	0.174
Median (IQR)	26.0 (23.0 –31.0)	28.0 (24.0 –32.0)		

t: Student t-test, IQR: Inter quartile range
p: p value for comparing between the studied groups

There was insignificant difference between both groups as regards gravidity, parity and abortion **(Table 2)**.

Table (2): Comparison between the two studied groups according to obstetric history.

Obstetric history	Group A (n = 100)		Group B (n = 100)		χ^2	P
	No.	%	No.	%		
Gravidity						
Primigravida	29	29.0	24	24.0	0.642	0.423
Multigravida	71	71.0	76	76.0		
1	29	29.0	24	24.0	0.707	0.702
2	37	37.0	38	38.0		
3	34	34.0	38	38.0		
Parity						
0	39	39.0	29	29.0	2.786	0.248
1	33	33.0	43	43.0		
2	28	28.0	28	28.0		
Abortion						
No	84	84.0	85	85.0	0.038	0.845
Yes	16	16.0	15	15.0		

χ^2: Chi square test
p: p value for comparing between the studied groups

There was insignificant difference between both groups as regards gestational age (in weeks) **(Table 3)**.

Table (3): Comparison between the two studied groups according to gestational age (in weeks).

Gestational age (in weeks)	Group A (n = 100)	Group B (n = 100)	t	P
Min. – Max.	37.0 – 40.0	37.0 – 40.0		
Mean ± SD.	38.61 ± 1.14	38.61 ± 1.07	0.000	1.000
Median (IQR)	39.0 (38.0 –40.0)	39.0 (38.0 –40.0)		

t: Student t-test, IQR: Inter quartile range
p: p value for comparing between the studied groups

There was insignificant difference between both groups as regards risk factor and previous surgery **(Table 4)**.

Table (4): Comparison between the two studied groups according to risk factor and previous surgery

	Group A (n = 100)		Group B (n = 100)		χ^2	P
	No.	%	No.	%		
Risk Factor						
LFD	35	35.0	34	34.0	4.642	MCp= 0.201
Twins	1	1.0	7	7.0		
Gestational DM	31	31.0	29	29.0		
Polyhydramnios	33	33.0	30	30.0		
Previous surgery						
No	85	85.0	88	88.0	0.385	0.535
Yes	15	15.0	12	12.0		

χ2: Chi square test, MC: Monte Carlo
p: p value for comparing between the studied groups

There was a significant difference between both groups as blood loss (intra-operative, post-operative and overall) **(Table 5)**.

Table (5): Comparison between the two studied groups according to blood loss

Blood loss (ml)	Group A (n = 100)	Group B (n = 100)	t	P
Intraoperative				
Min. – Max.	362.0 – 580.0	311.0 – 460.0	9.829*	<0.001*
Mean ± SD.	465.94 ± 72.18	381.53 ± 46.52		
Median (IQR)	455.5 (394.0 –537.0)	383.0 (337.5 –418.0)		
Postoperative				
Min. – Max.	37.0 – 152.0	15.0 – 96.0	10.325*	<0.001*
Mean ± SD.	94.68 ± 34.29	52.65 ± 21.95		
Median (IQR)	92.50 (66.50 –126.0)	53.0 (34.50 –70.0)		
Overall				
Min. – Max.	405.0 – 713.0	339.0 – 549.0	12.833*	<0.001*
Mean ± SD.	560.62 ± 84.10	434.18 ± 51.33		
Median (IQR)	561.0 (494.0 –640.0)	431.0 (395.0 –478.0)		

t: Student t-test, IQR: Inter quartile range
p: p value for comparing between the studied groups
*: Statistically significant at $p \leq 0.05$

There was insignificant difference between both groups as regards side effects **(Table 6)**.

Table (6): Comparison between the two studied groups according to postpartum bleeding and Side effect

	Group A (n = 100)		Group B (n = 100)		χ^2	P
	No.	%	No.	%		
Postpartum bleeding	0	0.0	0	0.0	–	–
Side effect						
Pyrexia	5	5.0	8	8.0	0.740	0.390
Shivering	50	50.0	54	54.0	0.321	0.571
Vomiting	3	3.0	0	0.0	3.046	0.081
Headache	41	41.0	45	45.0	0.326	0.568
Giddiness	2	2.0	4	4.0	0.687	[FE]p=0.683

p: p value for comparing between the studied groups

DISCUSSION

Misoprostol, a prostaglandin E1 analogue with strong uterotonic properties, has been suggested as an alternative to injectable uterotonic agents for preventing postpartum hemorrhage following vaginal or cesarean deliveries. A recent Cochrane review found that oral misoprostol was associated with a higher risk of severe postpartum hemorrhage and use of additional uterotonics after vaginal birth when compared to conventional uterotonic agents *(Lawrie et al., 2019)*.

However, oral or sublingual misoprostol was found to be more effective than placebo in reducing severe postpartum hemorrhage and blood transfusion after vaginal birth. The use of misoprostol during cesarean delivery to prevent hemorrhage attributable to uterine atony has received less attention and its effectiveness has not been systematically evaluated *(Elbohoty et al., 2016)*.

In this study we showed that there was insignificant difference between both groups as regards Age.

Sayed et al. (2020) showed that there was no significant difference between 2 groups as regard age.

Ali (2012) showed that there was no significant difference between 2 studied groups in his study as regard age.

Nasr (2015) showed that no statistically significant differences were found between groups as regard age.

Abdelaleem (2019) showed that there was no significant difference between studied groups in his study as regard age.

Alalfy et al. (2020) showed that there was no statistically significant difference between the two groups regarding the age.

In this study we reported that there was insignificant difference between both groups as regards gravidity, parity and abortion.

Ali et al. (2012) showed that there was no significant difference between 2 studied groups in his study as regard parity.

Abdelaleem et al. (2019) showed that there was no significant difference

between studied groups in his study as regards gravidity, parity and abortion.

Sayed et al. (2020) showed that there was no significant difference between 2 groups as regard parity.

In this study we found that there was insignificant difference between both groups as regards gestational age (in weeks).

Nasr (2015) showed that no statistically significant differences were found between groups as regard gestational age.

Abdelaleem et al. (2019) showed that there was no significant difference between studied groups in his study as regard gestational age.

Alalfy et al. (2020) showed that there was no statistically significant difference (P> 0.05) between the two groups regarding the gestational age.

Ali et al. (2012) showed that there was no significant difference between 2 studied groups in his study as regard gestational age.

Sayed et al. (2020) showed that there was no significant difference between 2 groups as regard gestational age.

In this study we illustrated that there was insignificant difference between both groups as regards Risk factor and previous surgery.

Nasr et al. (2015) showed that no statistically significant differences were found between groups as regard risk factor.

Sayed et al. (2020) showed that there was no significant difference between 2

studied groups as regard Number of previous caesarean deliveries.

In this study we demonstrated that there was highly significant difference between both groups as blood loss (intra-operative, post-operative and overall).

Abdelaleem et al. (2019) showed that there was highly significant difference between studied groups in his study as regard Intraoperative blood loss, 2 hours postoperative blood loss and Overall blood loss.

Ali (2012) showed incidence and degree of PPH in both groups, we had found out that there were a statistically significant difference between both groups in incidence and degree of PPH.

Sayed et al. (2020) showed that women of rectal misoprostol group had a significantly higher amount of intraoperative blood loss compared to cases of sublingual misoprostol group.

Chaudhuri et al. (2014) showed that the mean intraoperative blood loss was lower among women receiving misoprostol plus oxytocin than among those receiving placebo plus oxytocin.

Alalfy et al. (2020) showed that estimated blood loss was significantly (p < 0.001) lower in the study group 442.59 (151.33) ml than in the control group 591.01 (287.97) ml with a mean difference of 148.42 (26.56) ml.

Vimala et al. (2010) showed that the estimated mean blood loss during CS was significantly lower among women receiving sublingual misoprostol 400mg (819±236ml) than among those receiving 20IU oxytocin (974±285ml, p=0.004) soon after delivery of the neonate.

In this study we showed that there was insignificant difference between both groups as regards Side effects.

Sayed et al. (2020) showed that the comparison between groups regarding side effects and the need for uterotonics. Shivering and nausea were almost similar between groups with no significant difference. However, the incidence of vomiting was significantly higher in the group (I) compared to group (II). The results showed that 7 cases (14.0%) in rectal misoprostol group needed uterotonics versus only 3 cases (6.0%) in the sublingual misoprostol group; the difference between the groups was not significant.

Chaudhuri et al. (2014) showed that the incidence of adverse effects was higher among women who received misoprostol (P b 0.001). However, most adverse effects were self-limiting and subsided with simple measures such as covering women with blankets for shivering and cold sponging for pyrexia. Pharmacological agents were not required for any of these conditions.

Abdelaleem et al. (2019) showed that the side effects in both groups. Shivering and pyrexia were more in common in the misoprostol group while vomiting, headache and giddiness were significantly higher among oxytocin group. No significant differences as regards uterine atony in the postpartum period of follow up.

Alalfy et al. (2020) showed that fever was encountered in one case (0.67%) of the study group and two cases (1.33%) of the control group, (p = 0.566). Nausea & vomiting was encountered in three cases (2.00%) of the study group and five cases

(3.33%) of the control group, (p = 0.475). Shivering was encountered in one case (0.67%) of the study group and two cases (1.33%) of the control group, (p = 0.566).

In *Vimala et al. (2010)* study, the incidence of side effects such as pyrexia, shivering and metallic taste was significantly higher in misoprostol group compared to oxytocin group.

In *Owonikoko et al. (2011)* study, the incidence of adverse effects like shivering/pyrexia was significantly higher in the misoprostol group than in the oxytocin group.

Measurement of blood loss by the gravimetric method was the main limitation.

CONCLUSION

Intrauterine misoprostol (600) is more effective and less complicated than sublingual misoprotol (600) in decreasing the incidence of PPH and reducing the amount of postpartum blood loss. Also, it reduced the need for blood transfusion, the extra ecbolics, and additional intervention and with less reduction in postoperative HB level and hematocrit level when compared to oxytocin alone.

REFERENCES

1. **Abdelaleem AA, Abdelaleem NA and Abbas AM. (2019):** Intrauterine Misoprostol versus intravenous Oxytocin infusion during cesarean delivery to reduce intraoperative and postoperative blood loss: a randomized clinical trial. International Journal of Reproduction, Contraception,

Obstetrics and Gynecology, 8(4): 1662-68.

2. **Alalfy M, lasheen Y, Elshenoufy H, Elzahaby IM, Kaleem HW and Sawah H. (2020):** The efficacy of intrauterine misoprostol during cesarean section in prevention of primary PPH, A randomized controlled trial. J Matern Fetal Neonatal Med., 33(9):1459-1465.

3. **Ali AN. (2012):** Preoperative misoprostol sublingual versus postoperative misoprostol rectally in trial to prevent atonic postpartum hemorrhage in elective cesarean section under spinal anesthesia for high risk group. AAMJ, 11(2): 1-16.

4. **Arrowsmith S, Kendrick A and Wray S. (2010):** Drugs acting on the pregnant uterus. Obstetrics, Gynecology and Reproductive Medicine, 20(8): 241-247.

5. **Bazirete O, Nzayirambaho M, Umubyeyi A, Uwimana MC and Evans M. (2020):** Influencing factors for prevention of postpartum hemorrhage and early detection of childbearing women at risk in Northern Province of Rwanda: beneficiary and health worker perspectives. BMC Pregnancy and Childbirth, 20(1): 1-14.

6. **Chaudhuri P and Majumdar A. (2014):** Sublingual misoprostol as an adjunct to oxytocin during cesarean delivery in women at risk of postpartum hemorrhage. International Journal of Gynecology and Obstetrics, 128(1): 48–52.

7. **Elbohoty AE, Mohammed WE, Sweed M, Eldin AM, Nabhan A and Abd-El-Maeboud KH. (2016):** Randomized controlled trial comparing carbetocin, misoprostol, and oxytocin for the prevention of postpartum hemorrhage following an elective cesarean delivery. International Journal of Gynecology and Obstetrics, 134(3): 324-328.

8. **Evensen A, Anderson JM and Fontaine P. (2017):** Postpartum hemorrhage: prevention and treatment. American Family Physician, 95(7): 442-449.

9. **Karoshi M and Keith L. (2012):** Challenges in managing postpartum hemorrhage in resource-poor countries. Clin Obstet Gynecol., 52(2):285–298.

10. **Kassebaum NJ, Bertozzi-Villa A and Coggeshall MS. (2014):** Global, regional and national levels and causes of maternal mortality during 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. Lancet, 384(9947):980–1004.

11. **Lawrie TA, Rogozińska E, Sobiesuo P, Vogel JP, Ternent L and Oladapo OT. (2019):** A systematic review of the cost-

effectiveness of uterotonic agents for the prevention of postpartum hemorrhage. International Journal of Gynecology and Obstetrics, 146(1): 56-64.

12. **Marjoribanks J, Proctor M and Farquhar C. (2010):** Nonsteroidal anti-inflammatory drugs for dysmenorrhoea. Cochrane Database Syst Rev., 10: 1751-58.

13. **Mousa HA and Alfirevic Z. (2010):** Treatment for primary postpartum haemor¬rhage. Cochrane Database Syst Rev., 1:3249-55.

14. **Nasr AA. (2015):** misoprostol in two different regimens during CS for prevention of atonic postpartum hemaorrhage in high risks. AAMJ, 13: 1-6.

15. **Owonikoko KM, Arowojolu AO and Okunlola MA. (2011):** Effect of sublingual misoprostol versus intravenous oxytocin on reducing blood loss at cesarean section in Nigeria: a randomized controlled trial. J Obstet Gynaecol Res., 37(7):715-21.

16. **Panyapin J and Deoisres W. (2020):** Factors influencing the implementation of evidence-based practices for prevention and management of postpartum hemorrhage among nurse-midwives in thailand: a multilevel analysis. Thai Pharmaceutical and Health Science Journal, 15(2):90-97.

17. **Sayed M, Sayed S, Ibrahim M. (2020):** Comparison between the effect of sublingual and rectal misoprostol on hemoglobin level change before and after caesarean section. Egyptian Journal of Medical Research, 1(2): 13-23.

18. **Tang OS, Gemzell- Danielsson K and Ho PC. (2010):** Misoprostol: Pharmacokinetic profiles, effects on uterus and side effects. International Journal of Gynecology and Obstetrics, 8: 160-167.

19. **Vimala N, Mittal S and Kumar S. (2010):** Sublingual misoprostol versus oxytocin infusion to reduce blood loss at cesarean section. Int J Gynecol Obstet., 92(2):106-10.

20. **Xin YB, Hao GN, Lan JJ, Hong XU, Juan ZH and MJ Q. (2019):** "Endometriosis": A neuro-etiologic framework for its causes and consequences. Clin Obstet Gynecol., 5: 1-7.

مقارنة بين تأثير إستخدام عقار ميزوبروستول داخل الرحم أو أسفل اللسان للتحكم فى حدوث نزيف بسبب عدم إنقباض الرحم أثناء أو بعد عملية الولادة القيصرية

أحمد محروس بدير, مصطفى حسين حجاب, عطيه محمد عطيه

قسم النساء والولادة, كلية الطب, جامعة الازهر

E-mail: dr.ahmedbedeir2223@gmail.com

خلفيـــة البحـــث: يعتبـر نزيـف مـا بعـد الـولادة والـدم أثنـاء العمليـة أثنـاء الـولادة القيصـرية مصــدر قلــق كبيــر لجميــع أطبـاء التوليـد، والميزوبروسـتول هـو نظيـر للبروسـتاغلاندين E1 بخصـائص مقويـة لتـوتر الـرحم جيـدة وقـد تـم تقييمـه للوقايـة والعـلاج مـن النـزف التـالي للوضع.

الهـدف مـن البحـث: المقارنـة بـين الميزوبروسـتول داخل الـرحم وتحـت اللسـان لمنـع حـدوث نزيـف أثنـاء أو بعـد عمليـة الـولادة القيصرية.

المريضـات وطـرق البحـث: تـم إجـراء هـذه التجربـة السـريرية العشـوائية المضـبوطة, أجريـت هـذه الدراسـة فـي غـرف العمليـات بمستشـفى بـاب الشـعرية للـولادة، قسـم أمـراض النسـاء والتوليـد بجامعـة الأزهـر، مـن يوليـو 2020 حتـى ينـاير 2021. تـم تجنيـد مـائتي سـيدة حامـل مـن غـرف عمليـات بـاب الشـريعة. مستشـفى الشـريعة للـولادة، قسم النساء والتوليد، جامعة الأزهر.

نتـائج البحـث: لا يوجـد فـرق كبيـر بـين المجمـوعتين فيمـا يتعلـق بـالعمر والحمـل والتكـافؤ والإجهـاض و الـوزن (كجـم)، الارتفـاع (سـم)

ومؤشـر كتلـة الجسـم (كجـم/ م 2) و بعمـر الحمـل (بالأسابيع) و عامـل الخطـر والجراحـة السـابقة و يتعلـق بالآثـار الجانبيـة. وهنـاك فـرق كبيـر بـين المجمـوعتين مثـل فقـدان الـدم (أثنـاء الجراحـة وبعـد العمليـة الجراحية وبشكل عام).

الاسـتنتاج: الميزوبروسـتول داخـل الـرحم (600 مجـم) فعـال فـي تقليـل حـدوث نزيـف مـا بعـد الـولادة وتقليـل كميـة فقـدان الـدم بعـد الـولادة. أيضًـا، الميزوبروسـتول قلـل مـن الحاجـة إلـى نقـل الـدم، والتخفيضـات الإضافية، والتـدخل الإضـافي مـع إنخفـاض أقـل فـي مسـتوى الهيموجلـوبين بعـد الجراحـة ومسـتوى الهيماتوكريـت عنـد مقارنتـه بالأوكسيتوسين وحده.

الكلمـات الدالـة: الـولادة القيصـرية، الميزوبروسـتول، تحـت اللسـان الميزوبروستول.