



Post Placental Iud Expulsion And Side Effects In Denpasar City

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Abstract. Post-placental IUD implantation is one of many strategies the government has put in place to reduce the rate of population growth. In Indonesia, this program's implementation has not yet been fully adopted, however in Denpasar City, it has been done so at hospitals, healthcare centers, and independent midwives' practices. The purpose of this study is to determine the prevalence of post-placental IUD expulsion and its side effects in Denpasar City. This kind of study uses observational analytics and a prospective methodology. This study's sample consisted of postpartum mothers who obtained post-placental IUD IUD CuT-380A services. The inclusion criteria were residents of Denpasar City who were willing to participate as respondents. The sample size is 39 persons. The sampling technique is Consecutive sampling. The research variables were adverse effects that appeared 42 days after insertion and expulsion events. Data collection techniques are interviews and physical examination. Data analysis used Fisher's Exact Test with $p \leq 0.05$. The results of the study showed that the incidence of expulsion was 2.6%, suprasymphysis pain 23%, spotted bleeding 17.9%, vaginal discharge 51.3% and portio erosion 35.9%. Age was not related to the side effects of suprasymphysis pain ($p=0.07$), spotted bleeding ($p=1.00$), vaginal discharge ($p=1.00$) and portio erosion ($p=1.00$). Parity was not associated with suprasymphysis pain ($p=0.57$), spotted bleeding ($p=1.00$), vaginal discharge ($p=0.66$) and portio erosion ($p=0.63$). Throughout the reproductive age range, post-placental IUD is a suitable technique for both primiparous and multiparous women .

Keywords: Postplacental IUD, Expulsion, Side effects.

1 Introduction

Reducing the population growth rate is necessary because a big, low-quality population is a burden on development. The government has put in place a number of schemes to slow down population growth, one of which is to increase the use of contraception. Since there are still many unmet demands for the use of contraceptives, efforts are made to boost their use through a variety of innovations. Insertion of post-placental IUD is quite successful in resolving the issue of unmet need [1]. Insertion of a post-placental IUD provides a number of benefits, including simplicity, the acceptor's clear not having a pregnancy, a lack of waiting time, and protection for the patient as soon as they leave

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the hospital. For many women, it is it will be easier to leave the hospital after giving birth is protected from unplanned pregnancy [2]. However, the patient should not have the IUD implanted without proper counseling and their informed permission. According to Harani et al., (2019), during antenatal treatment, 58% of pregnant women who were counseled on the use of post-placental IUDs received it [3]. 75% of fertile women are interested in taking part in the post-placental IUD program [4]. Counseling is essential to address knowledge gaps and remaining concerns involvement of male partners in family planning counseling and decision making with their partners could be a key strategy to increase the use of post placental IUDs [5]. Another disadvantage of post-placental IUD implantation is that the expulsion rate (detached) is still quite high. Expulsion occurs because the uterus is insertion while still huge, making it possible for the IUD to be pushed out as the uterus shrinks back to its former size. Expulsion is 20% more likely to occur after 7 days of insertions [6]. 10% at 6 weeks of insertions and 2.2% at 12 weeks of insertions [7]. According to earlier research, 12.3% of IUDs that were implanted after the placenta were expelled. 10.68% of post-placental IUDs were expelled during the first six months of insertion, according to a 5-year study conducted in India involving 1037 samples [8]. A study reported, among the complications bleeding was reported by 23.50% of the cases and expulsion rate was 8.99%.5 While another study reported the rate of expulsion of IUCD was 3.6% [9]. The purpose of this study is to determine the prevalence of post-placental IUD expulsion and its side effects in Denpasar City.

2 Method

This kind of study uses observational analysis and a prospective approach. The sampling method is non-probability sampling of the "Consecutive Sampling" type. Post-partum women who met the inclusion criteria, used post-placental IUD CuT-380A services, and were willing to participate in surveys made up the samples. The main information included in this study comes from inspectional data on expulsion, vaginal discharge, and portio erosion. Through anamnesis, information on suprasymphysis discomfort and spotted blood was gathered. Secondary data comes from medical records and includes information on when the IUD was insertion, the respondents' characteristics (age and parity), the length of the first and second stages of labor, and the weight of the newborn. Data were gathered on day 42 after delivery. The mean, maximum, and minimum are included in a univariate analysis of data. bivariate analysis with Fisher's Exact Test $p < 0,05$. Based on the baby's weight, age, parity, length of labor, and incidence of expulsion side effects, a stratified analysis of the data was conducted. Ethical clearance for research was obtained from the ethical commission of the Faculty of Medicine, Udayana University/Sanglah Denpasar Central General Hospital with number 1794/UN.14.2/Litbang/2016

3 Result

Respondent characteristics observed in this study were age, parity, length of delivery and birth weight. Table 1 displays the research findings:

Table 1. Age, parity, duration of labor and weight of newborns from post-placental IUD acceptors

Item	Variable	n	%
1	Age		
	<20 years	0	0
	20-35 years	34	87.2
	>35 years	5	12.8
	Total	39	100.0
2	Parity		
	Primiparous	5	12.8
	Multiparous	34	87.2
	Total	39	100.0
3	Length of First Stage of Labor		
	Primiparous \leq 24 Jam	5	12.8
	>24 Jam	0	0
	Multiparous \leq 12 Jam	34	87.2
	>12 Jam	0	0
	Total	39	100.0
4	Length of Second Stage of Labor		
	Primiparous \leq 2 Jam	5	12.8
	>2 jam	0	0
	Multiparous \leq 1,5 Jam	34	87.2
	>1,5 jam	0	0
	Total	39	100.0
5	Weight of Newborns		
	<4000 g	39	100.0
	\geq 4000g	0	0

According to Table 1, the majority of respondents (87.2%) were between the ages of 20 and 35, and 87.2% were multiparous. For both primiparas and multiparas, the first and second stages of labor endure a typical amount of time. The overall birth weight was less than 4000 grams.

Variables observed in this study were expulsion events, suprasymphysis pain, spotted bleeding, vaginal discharge and portio erosion in post-placental IUD acceptors. Table 2 displays the research findings:

Table 2. Expulsion Events, Suprasymphysis Pain, Spotted Bleeding, Vaginal Discharge and Portio Erosion in Post Placenta IUD Acceptors

Item	Variable	n	%
1	Expulsion Events		

	No Expulsion	38	97.4
	Expulsion	1	2.6
	Total	39	100
2	Suprasymphysis Pain		
	No pain	30	76.9
	Pain	9	23.1
	Total	39	100
3	Spotted Bleeding		
	No spotted	32	82.1
	Spotted	7	17.9
	Total	39	100
4	Vaginal Discharge		
	No Vaginal Discharge	19	48.7
	There is Vaginal Discharge	20	51.3
	Total	39	100
5	Portio Erosion		
	No erosion	25	64.1
	Erosion	14	35.9
	Total	39	100

According to Table 2, data reveals that just one (2.6%) of the 39 samples who experience expulsion reported adverse effects, including suprasymphysis pain (23%), spott bleeding (17.9%), vaginal discharge (51.3%), and part erosion (34.9%).

Table 3. Side Effects of Suprasymphysis Pain by Age and Parity

		Suprasymphysis Pain				Total	Fisher's Exact Test
		There is		No			
		n	%	n	%		
Age	>35 years	3	60.0	2	40.0	34	0.07
	20-35 years	6	17.6	28	82.4	5	
Total		9	23.1	30	76.9	39	
Parity	Primiparous	2	40.0	3	60.0	5	0.57
	Multiparous	7	20.6	27	79.4	34	
Total		9	23.1	30	76.9	39	

According to Table 3, 60% of people who experience supra symphysis pain's side effects are above the age of 35. Age and the adverse effects of supra symphysis pain did not correlate, according to Fisher's Exact test results ($p=0.07$). Based on parity, primipara experienced supra-symphyseal pain symptoms the most frequently (40%).

There was no correlation between parity and supra-symphyseal pain in post-placental IUD acceptors, according to Fisher's Exact test results ($p=0.57$).

Table 4. Side Effects of Spotted Bleeding based on Age and Parity

		Spotted Bleeding				Total	Fisher's Exact Test
		Spotted		No Spotted			
		n	%	n	%		
Age	>35 years	1	20.0	4	82.4	34	1.00
	20-35 years	6	17.6	28	82.4	5	
Total			17.9	32	82.1	39	
Parity	Primiparous	1	20.0	4	80.0	5	1.00
	Multiparous	6	17.6	28	82.4	34	
Total		7	17.9	32	82.1	39	

The data in Table 4 demonstrate that the side effects of spotting/spotting bleeding mostly occur at ages >35 years (20%). However, the Fisher's Exact test findings obtained a p value = 1.00, which indicates that age is not associated to the incidence of spotted bleeding side effects. Primiparas (20%) are those who experience spotted bleeding complications the most frequently. According to the Fisher's Exact test, the parity of post-placental IUD acceptors is not related to the side effects of spotting bleeding ($p = 1.00$).

Table 5. Side Effects of Vaginal Discharge based on Age and Parity

		Vaginal Discharge				Total	Fisher's Exact Test
		There is Vaginal Discharge		No Vaginal Discharge			
		n	%	n	%		
Age	>35 years	17	50.0	17	50.0	34	1.00
	20-35 years	3	60.0	2	40.0	5	
Total			51.3	19	48.7	39	
Parity	Primiparous	2	40.0	3	60.0	5	0.66
	Multiparous	18	52.9	16	47.1	34	
Total			51.3	19	48.7	39	

Table 5 shows that vaginal discharge's most frequent side effects are experienced by responders over the age of 35 in 60% of cases. The Fisher's Exact test resulted in a

value of $p = 1.00$, indicating that there was no relationship between age and the frequency of vaginal discharge in post-placental IUD acceptors. Vaginal discharge's adverse effects were most prevalent (52.9%) among responders who were multiparous. The Fisher's Exact test obtained a value of $p = 0.66$, indicating that there is no relationship between parity and the frequency of vaginal discharge in post-placental IUD acceptors.

Table 6. Side Effects of Portio Erosion based on Age and Parity

		Portio Erosion				Total	Fisher's Exact Test
		Erosion		No Erosion			
		n	%	n	%		
Age	>35 years	2	40.0	3	60.0	34	1.00
	20-35 years	12	35.3	22	64.7		
Total			35.9	25	64.1	39	
Parity	Primiparous	1	20.0	4	80.0	5	0.63
	Multiparous	13	38.2	21	61.8	34	
Total			35.9	25	64.1	39	

According to Table 6, portio erosion adverse effects usually affect those over the age of 35 (40.0%), however a Fisher's Exact test result obtained a p value of 1.00, indicating that age has no impact on these side effects. Multiparous (38.2%) had the highest incidence of portio erosion based on parity side effects. According to the Fisher's Exact Test results, p value = 0.63, parity is not associated with the frequency of portio erosion's side effects in post-placental IUD acceptors.

4 Discussion

4.1 Age, Parity, Length of Labor, and Newborn Weight

The age ranges of the respondents were divided into two groups: 20–35 years old and >35 years old. According to the study's findings, 87.2% of respondents were between the ages of 20 and 35 and multiparous parity. Other studies produced various findings, including the finding that primiparas (20.73%) accepted this strategy more widely [10]. According to [11], the age > 20 years (87.4%) and parity 2-5 (56.5%) groups received the most post-placental IUD methods.

These findings indicate that using an IUD as a form of birth control is a wise decision. Healthy reproductive age (20-35 years) and multiparous parity need long-term and highly repeatable contraceptive treatments. At this point, married couples must decide whether to stop having children or space them out because they already have enough children. The IUD method is highly suitable for couples who wish to end a pregnancy but are not ready to use the tubectomy or vasectomy method because it can be used within 8 years. For both primiparas and multiparas, the first and second stages

of labor endure a typical amount of time. Overall birth weight is less than 4000 grams. With regard to a normal birth, these findings show that the criteria for post-placental IUD insertion have been fulfilled.

4.2 Post Placental IUD Expulsion

Only 1 (2.6%) of the 39 acceptors were expelled, which is a very low rate. According to 2015 research, there was a higher prevalence of post-placental IUD expulsion, with 20% occurring within 7 days, 70% occurring during 7–30 days, and 10% occurring after 30 days following insertions [6]. The 2014 analysis indicated that expulsion incidents were greater, at 8.99% [10]. The 2016 study also discovered a higher expulsion rate, 3.5% [4]. The frequency of expulsion from IUD Fisher's Exact Test post placental was found to be lower (14%) than IUD implantation after 6 weeks (18%) [12]. The same study in Karachi Pakistan used a different IUD, namely Multiload Copper 375 which was inserted immediately within 10 minutes after delivery of the placenta. Observation results 6 weeks postpartum found 9% expulsion [13]. The expulsion in vaginal delivery expulsion of IUD occurred in 11 patients (16.6%) [14]. Research with a similar design discovered spontaneous expulsion was noted in 3% at 4-6 weeks [15]. The mother's health at the time of delivery has an impact on this outcome. Stage I and stage II of labor both lasted a regular amount of time, which left the mother in good health. All babies were born weighing less than 4000 grams, indicating that none of the responders had uterine overdistention. Uterine atony puts a laboring woman at risk for postpartum hemorrhage when the baby weighs more than 4000 grams. The inserted IUD in this circumstance needs to be taken out. The expulsion rate was significantly higher among TCu380A IUD users and among women with vaginal delivery (Marcos Marangoni). Intrauterine device (IUD) expulsion increases the risk of unintended pregnancy (Mary Anne Armstrong).. Expulsion can be prevented if the post-placental IUD is positioned correctly, specifically at the fundus. Professionals with the necessary training must complete this inserion. The risk of expulsion can be reduced by training in post-placental insertion techniques [16]. At this research site, all of the midwives who offer post-placental IUD services are certified and have received training. The high level of satisfaction among women with postplacental IUD insertion is affected by the low expulsion rate. In their research from 2015, Jisha, B.C.P. discovered that 89% of Indians were satisfied with the usage of post-placental IUD [17]. Two-thirds of women who accepted a post-placental IUD placement still used the device 1 year after childbirth [18]. The rate of long-term continuation of intrauterine contraception was high, indicating that it is a useful intervention to prevent unwanted pregnancies and to reduce short-interval birth [19]. Insertion of Post Placental IUD protects against short-term pregnancies and the risks that accompany them for better maternal and birth outcomes ostplacental insertion greatly reduces the risk of subsequent pregnancies and reduces the need for return visits start contraception [20]. immediate postplacental IUD placement is a viable contraceptive option [21]. Post Plasental IUD insertions can promote access to postpartum family planning and reduce the unmet need for contraception [22].

4.3 Post Placental IUD Side Effects

Post-partum IUCD placement is the method of insertion of IUCD immediately after placental removal [23]. According to the study's findings, the side effects that post-placental IUD acceptors reported within 42 days of usage included suprasymphysis pain in 23% of cases, spotted bleeding in 17.9% of cases, vaginal discharge in 51.3 % of cases, and part erosion in 34.9 % of cases. Bleeding side effects were found to be lower in (14.4%) patients after 42 days of IUD placement [23]. Higher bleeding adverse effects were discovered in 2015 research, at 26.66% [6]. Infection, discomfort, and bleeding were all side effects that were discovered in another study that same year [7]. No one requests to switch to a different method since the side effects are still within physiological bounds and the acceptor can cope with them. A similar study found the incidence of pelvic pain was 20.36% at 30 to 45 days, decreasing to 12.30% at 3 months [24]. Another study found pain and bleeding in 41% and 15% insisted on CuT removal [25]. in Pakistan found higher side effects of spotting (52.0%) and vaginal discharge (16.0%) [26].

4.4 Expulsion Events and Side Effects based on Age, Parity, Length of Delivery and Newborn Weight.

Suprasymphysis pain is one of the IUD's adverse effects. The uterine muscles are contracting, which causes this pain. Every person will experience pain at a different level. In this study, reproductive age > 35 years accounted for 60% of the side effects of suprasymphysis discomfort. Age and the adverse effects of suprasymphysis pain did not correlate, according to Fisher's Exact test results ($p=0.07$). Primiparous account for 40% of cases of suprasymphysis discomfort that are associated with parity. According to the Fisher's Exact test results, there was no correlation between parity and suprasymphysis pain in post-placental IUD acceptors ($p=0.57$). Based on these findings, women in the reproductive age range, including primiparous and multiparous, can use the post-placental IUD as long as there are no contraindications.

Spotted bleeding can start 1-2 days after IUD insertion or can also start 2-3 months later, in between menstrual cycles. It is important to differentiate between locheal expulsion during the involution phase and spotted with post-placental IUD placement. After the 10th day of installation, the spotting question was posed in this study. The majority of bleeding/spotting side effects (20%) were found to occur in women who were not healthy for pregnancy, although the Fisher's Exact test obtained a value of $p=1.00$, indicating that age is not a factor in the frequency of bleeding/spotting side effects. Primiparous (20%) experience spotting/bleeding's side effects the most frequently. The Fisher's Exact test result was $p=1.00$, indicating there is no correlation between parity and the side effects of spotting hemorrhage in post-placental IUD acceptors. The adverse effects of spotting need to be watched since they can impact the mother's health and the comfort of the husband and wife relationship, even if the occurrence is low and has nothing to do with age or parity.

An endometrial response can lead to vaginal discharge or thick/watery discharge from the IUD acceptor. If the discharge is odorless, not yellow, and unaccompanied by

itching, it is considered to be within normal bounds. Using a speculum, the examination is conducted by inspection. According to earlier studies, 25% of women with post-placental IUD insertion experienced vaginal discharge in the first month [6]. According to the study's findings, respondents over 35 years old (60%) were most likely to experience vaginal discharge's adverse effects. The Fisher's Exact test results showed a p value of 1.00, indicating that there is no relationship between age and the frequency of vaginal discharge adverse effects in post-placental IUD acceptors. Vaginal discharge's adverse effects were most prevalent (52.9%) among responders who were multiparous. The Fisher's Exact test yielded a p value of 0.66, indicating that there is no correlation between parity and the frequency of vaginal discharge in post-placental IUD acceptors.

The IUD causes multiple physiological reactions to adapt because it is a foreign item to the body. A significant reaction may be brought on by the IUD string connecting the intrauterine to the extrauterine. The cells in the portio become flat and vulnerable to erosion as a result of repeated friction. The majority of participants in this study who had portio erosion's adverse effects were over 35 years old, however the Fisher's Exact test results obtained a p value of 1.00, indicating that age is not a factor in these effects. Multiparas are where portio erosion based on parity occurs most frequently. The Fisher's Exact Test obtained a value of $p = 0.63$, indicating that parity is not associated with the frequency of portio erosion adverse effects in post-placental IUD acceptors.

5 Conclusion

The purpose of this study is to determine the prevalence of post-placental IUD expulsion and its side effects in Denpasar City. According to the study's findings, expulsion occurred 2.6% of the time, suprasymphysis pain 23%, spotted bleeding 17.9%, vaginal discharge 51.3%, and portio erosion 35.9% of the time. Suprasymphysis pain ($p=0.07$), spotted bleeding ($p=1.00$), vaginal discharge ($p=1.00$), and portio erosion ($p=1.00$) were all side effects that were not correlated with age. Suprasymphysis pain ($p=0.57$), spotted bleeding ($p=1.00$), vaginal discharge ($p=0.66$), and portio erosion ($p=0.63$) were not related to parity.

For both primiparous and multiparous women across the reproductive age range, the post-placental IUD is a suitable technique. It is very important to pay attention to where the post placental IUD is inserted by a trained and certified doctor or midwife. Further research is needed on the side effects and expulsion of post placental IUD insertion at 3 months, 6 months and 1 year with ultrasound examination.

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