

## Overview of Retained Products of Conception And its Management

Dr. Pavitra Sharma<sup>1</sup>, Dr. Vinu Choudhary<sup>2</sup>, Dr. Priyanka Rahariya<sup>3</sup>

<sup>1</sup>Assistant Professor, Dept. Of Obs. & Gynaecology, Sawai Man Singh Medical College, Jaipur, Rajasthan.

<sup>2</sup>Senior Resident, Dept. Of Obs. & Gynaecology, Sawai Man Singh Medical College, Jaipur, Rajasthan.

<sup>3</sup>Medical Officer, Dept. Of Obs. & Gynaecology, Sawai Man Singh Medical College, Jaipur, Rajasthan.

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### Abstract

**Introduction:** Partial or complete retention of products of conception after delivery or abortion is referred to as "RPOC". RPOCs are suspected whenever a female presents with sustained or prolonged vaginal bleeding after a period of amenorrhea as in cases of spontaneous or induced abortion or following delivery. Besides clinical examination, ultrasound is indispensable for evaluation.

Depending on the patient's general condition, symptoms and size of RPOCs, medical or surgical evacuation is planned. Complications like anemia, sepsis, drug reaction or those inherent to the surgical procedure should be diagnosed timely and appropriately managed.

**Methodology:** This study was conducted at Mahila Chikitsalaya, S.M.S. medical college, Jaipur over a period of 3 months, from January 2016 to March 2016. 100 women presenting to the OPD with history of amenorrhea followed by bleeding per vaginum, pain abdomen or expulsion of a fleshy mass were clinically examined and ultrasonographically confirmed for RPOCs. These patients were given either medical treatment (T. Misoprostol 600mcg vaginally) or surgical evacuation.

**Result:** RPOCs were found to be more common in multiparous women and abortion rate decreased with increasing gestation. Medically planned abortions resulted in fewer RPOCs. Medical management was found to be better for smaller sized RPOCs and at lesser gestational age while surgical evacuation was better for larger sized RPOCs occurring at advanced gestation in terms of patient satisfaction, complications and success rate. Complications with both were minimal.

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### I. Introduction

Partial or complete retention of products of conception after delivery or abortion is referred to as "RPOC". RPOCs are suspected whenever a female presents with amenorrhea followed by sustained or prolonged vaginal bleeding as in cases of spontaneous or induced abortion or following delivery. Besides clinical examination, ultrasound is indispensable for evaluation. It may present as an endometrial mass/thickening (ET > 10mm) with or without vascularity or echogenic/complex fluid within the endometrial cavity. Depending on the patient's general condition, symptoms and size of RPOCs, medical or surgical evacuation is planned. With the advent of high resolution transvaginal sonography, early pregnancy miscarriages have been reclassified into anembryonic pregnancy, early fetal demise, incomplete miscarriage and complete miscarriage [1–8].

In recent times as a result of positive experiences with prostaglandin analogue (most commonly misoprostol), the medical termination of the first trimester miscarriage is accepted as a safe and effective alternative [5]. However, this method is not without its inherent complications like the need for emergency surgical evacuation, pain, an increase in induction abortion time, and also an increase in the analgesic requirement [3,5]. Surgical, medical and expectant management are the various options available to manage early pregnancy miscarriages; each with its own merits and demerits [3,4]. Complications like anemia, sepsis, drug reaction or those inherent to the surgical procedure should be diagnosed timely and appropriately managed.

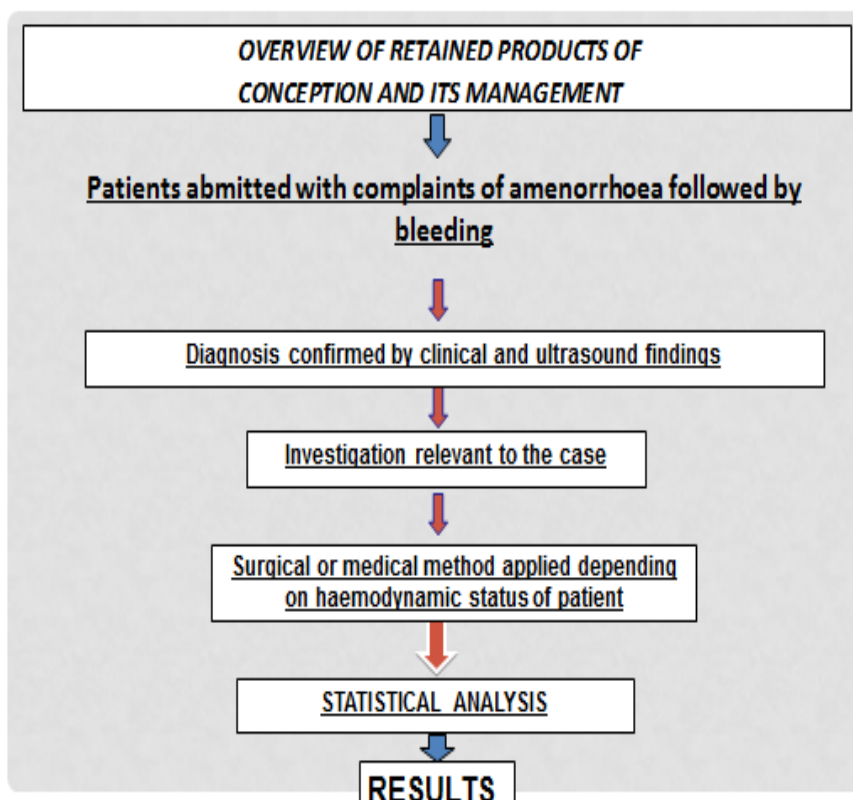
In the last two decades, the efficacy and safety of expectant management which allows for the spontaneous passage of retained products of conception has been studied and confirmed [4,5]. This prospective study also compares the success rate and complications of early pregnancy miscarriages which were treated by medical management, with surgical uterine evacuation.

### II. Method

This study was conducted at Mahila Chikitsalaya, S.M.S. medical college, Jaipur over a period of 3 months, from January 2016 to March 2016. 100 women presenting to the OPD with history of amenorrhea followed by bleeding per vaginum, pain abdomen or expulsion of a fleshy mass were clinically examined and ultrasonographically confirmed for RPOCs. These patients were given either medical treatment (T. Misoprostol 600mcg vaginally) or surgical evacuation depending on the patient's hemodynamic status.

**Inclusion Criteria-**

1. Patient diagnosed with retained products of conception clinically and on ultrasound examination.
2. General condition – fair
3. Blood pressure 120/80 mmhg.
4. Inclusion Pulse rate- 72/min.
5. Clinically and on ultrasonography not diagnosed as ectopic pregnancy
6. No history of diabetes, asthma, cardiac disease, epilepsy, hypersensitivity to Misoprostol.
7. No signs of sepsis.
8. Patient willing for study.



**III. Results**

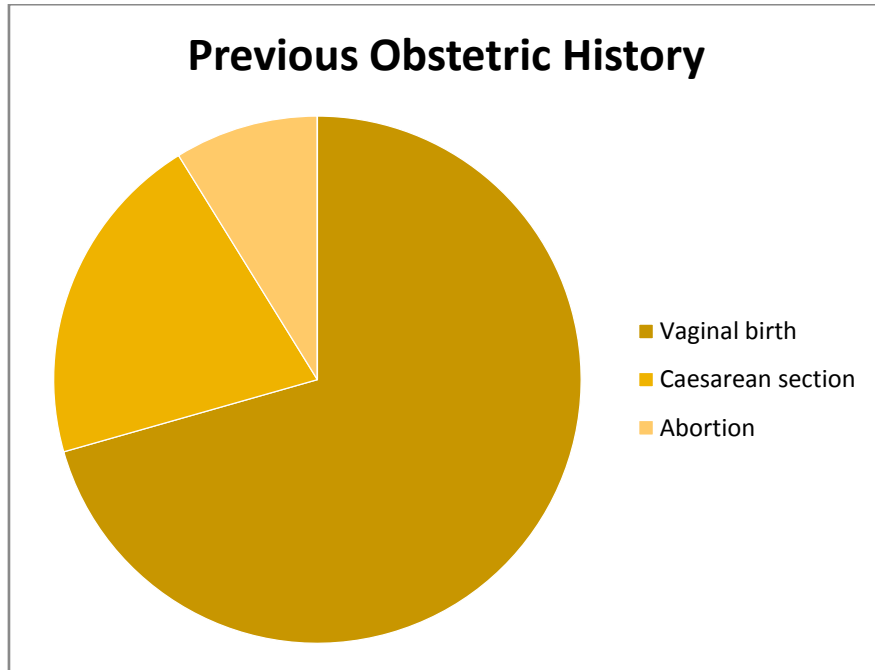
In the study it was found that the mean age was 26.16 yrs. Out of the 100 patients studied, 32 (32%) were primigravidae and 68 (68%) were multigravidae of which 48(48%) had previous vaginal birth, 14 (14%) had caesarean and 6(6%) had previous abortion.

**Table 1:**

O/H	n = 100
Primi	32
Multi	68

**Table 2:**

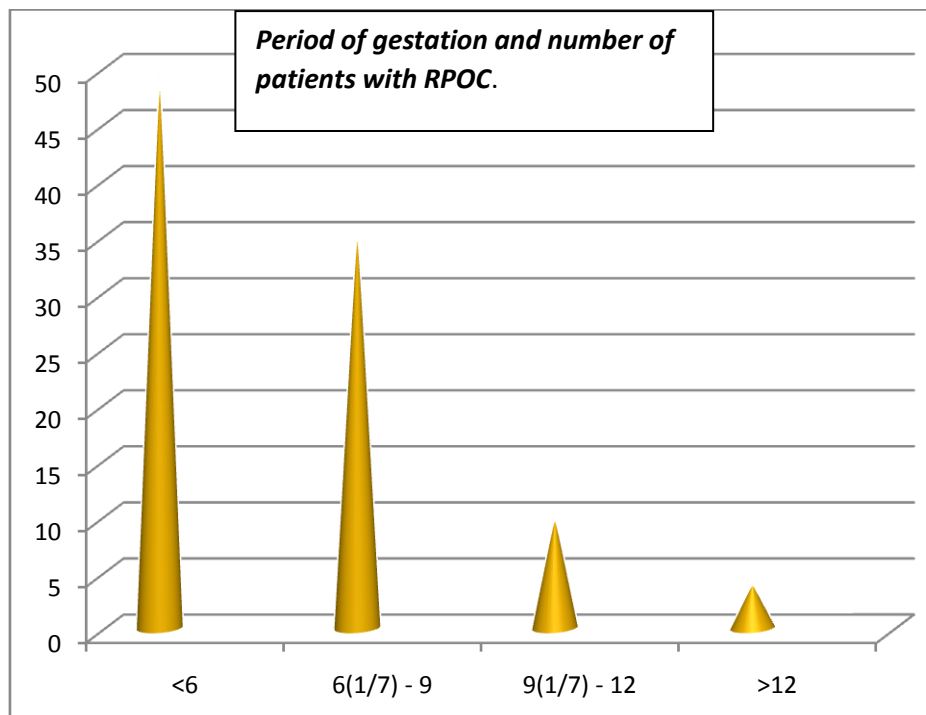
Previous obstetric history	n = 68
Vaginal birth	48
LSCS	14
Abortion	6



**Table 3:**

Fifty (50%) patients with RPOCs presented with POG < 6 wks, 32(32%) presented between 6<sup>1/7</sup> to 9 weeks, while 12% presented with 9<sup>1/7</sup> to 12 weeks period of gestation. Only 6% presented with retained products of conception in >12<sup>1/7</sup> weeks period of gestation.

Period of Gestation (weeks)	n= 100 (%)
< 6	50 (50%)
6 <sup>1/7</sup> -9	36 (36%)
9 <sup>1/7</sup> -12	10 (10%)
>12	04 (04%)



**Table 4:**

Seventy four (74%) patients with spontaneous abortions presented with RPOCs as compared to 26 (26%) with medical abortions.

Origin of RPOCs	n=100
Medical Abortion	26
Spontaneous Abortion	74

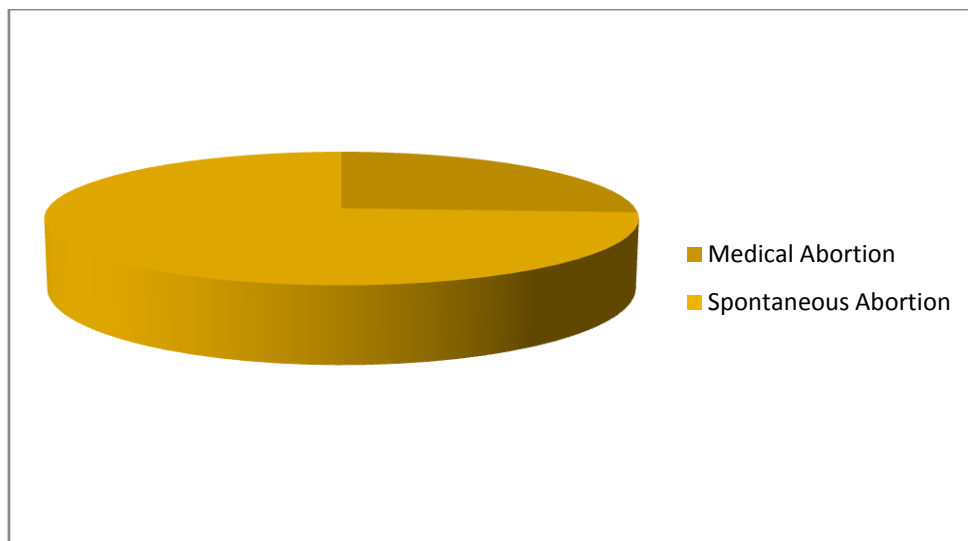


Table 5:

Out of the 100 patients, 34 (34%) were managed medically with failure of treatment in 10(10%) while 66 (66%) were managed surgically with failure of treatment in 6(6%).

Treatment	n=100	failure(n=16)
Medical	34	10
Surgical	66	6

Table 6:

Majority of 44 patients (44%) presented with RPOCs of size 26-50mm, 36 (36%) patients with 16-25mm size, 18 (18%) with = or < 15mm while only 2 (2%) presented with >50mm size of RPOCs.

Size of RPOC (mm)	n=100
< 15	18
16-25	36
26-50	44
>50	02

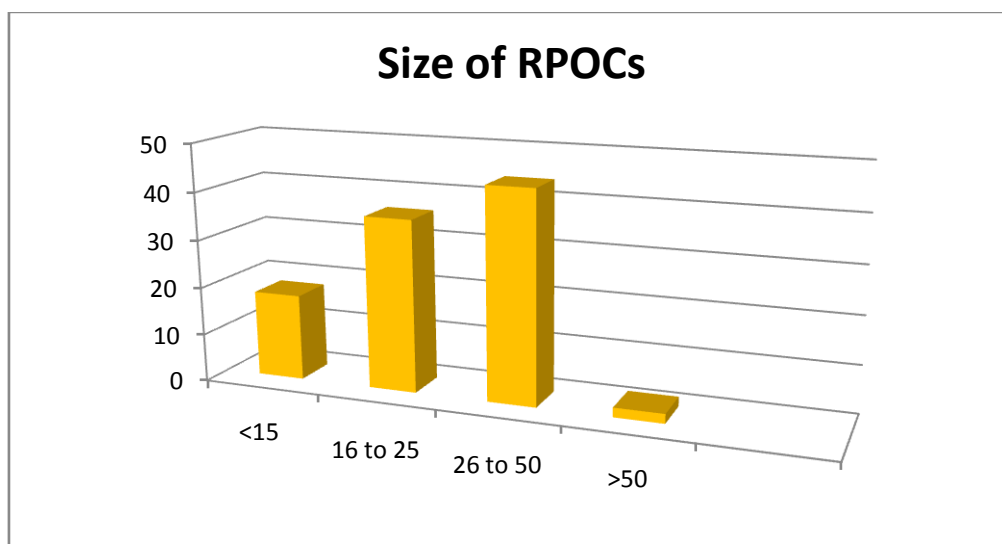


Table 7:

**Distribution table showing co-relation between size of RPOC and type of management:**

It was found that medical management with 600mcg of T.misoprostol (PgE1) placed vaginally was more efficacious in RPOCs upto15mm while medical and surgical management were equally efficacious for RPOCs upto16-25mm. Surgical management was more successful in RPOCs 26-50mm size while only surgical treatment was done for size or RPOCs >50mm. This finding was found to be statistically significant using Chi-square test of significance.

Chi-square = 25.940 with 3 degrees of freedom; P = 0.000

Size of RPOC (mm)	Medical	Surgical	P Value
<15	12	06	
16 to 25	18	18	
26 to 50	04	38	
>50	-	04	

**Table 8:**

**Distribution table showing co-relation of period of gestation & type of management:**

It was found in the study that medical and surgical management were equally efficacious for RPOCs up to 6wks of POG whereas surgical management was more efficacious for RPOCs > 6wks. This finding was found to be statistically significant using Chi-square test of significance.

Period of Gestation(weeks)	Medical	Surgical	P Value
<6	24	26	
6 <sup>1/7</sup> to 9	06	30	
9 <sup>1/7</sup> to 12	04	06	
>12	-	04	

Chi-square = 11.408 with 3 degrees of freedom; P = 0.012

**IV. Discussion**

In this study it was found that abortions were more common in multigravidae as compared to primigravidae which is in coherence with the findings of Pollack et al (2009) [9] who found that spontaneous abortion rates increase with gravida status and increasing gravida status could be a significant risk factor. The maximum patients(50%) with RPOCs were found with POG< 6wks and decreased with increasing gestational age which is consistent with the fact that frequency of abortions decreases with increasing gestational age as supported by Wilcox AJ, Weinberg C.R., O’Connor JF et al [10,11]. RPOCs were more common in spontaneous abortions(74%) as compared to medical abortions (36%).In this study it was concluded that medical management was a more suitable management option for smaller sized RPOCs in terms of success rate , complications and patient satisfaction whereas with increasing size of RPOCs , surgical management was better when these criteria were considered. There were no differences in serious adverse events between the medical management and surgical treatment groups.

Overall, there were two women in medical management group who required blood transfusion. Sixteen patients (16%) had failure of primary treatment of which 10 (10%) were managed medically and 6(6%) were managed surgically. All of these 16 patients underwent D&E as secondary management. Medical treatment had a complete abortion rate of 70.58% while surgical treatment had a complete abortion rate of 90.9%. A statistically significant correlation was found between size of RPOCs and treatment modality with surgical treatment being better than medical for RPOCs more than 26mm. A statically significant correlation was also found between POG of abortion and treatment modality. Surgical treatment was found to be better for POG 6<sup>1/7</sup> wks and above.

**V. Conclusion**

The medical management of RPOCs has an acceptable success rate with complications comparable with surgical group except for the unplanned admissions and emergency evacuation. The evidence is insufficient to demonstrate the superiority of either medical or surgical management. Success rate of medical management can be improved with much lesser complication by proper patient selection and counselling. s

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