



www.figo.org

Contents lists available at ScienceDirect

## International Journal of Gynecology and Obstetrics

journal homepage: www.elsevier.com/locate/ijgo



## CLINICAL ARTICLE

# A comparison of reproductive outcomes following hysteroscopic management versus dilatation and curettage of retained products of conception

Ido Ben-Ami <sup>\*</sup>, Yaakov Melcer, Noam Smorgick, David Schneider, Moty Pansky, Reuvid Halperin <sup>1</sup>

Department of Obstetrics and Gynecology, Assaf Harofeh Medical Center, Zerifin, Israel

## ARTICLE INFO

## Article history:

Received 3 January 2014

Received in revised form 29 April 2014

Accepted 12 June 2014

## Keywords:

Curettage

Hysteroscopy

Infertility

Residual trophoblastic tissue

Retained products of conception

## ABSTRACT

**Objective:** To compare the reproductive outcome of women who underwent blind dilatation and curettage (D&C) with those who underwent hysteroscopic resection of pathologically confirmed retained products of conception (RPOC). **Methods:** Medical records of women who underwent either D&C or hysteroscopic resection of RPOC at Assaf Harofeh Medical Center, Israel, between 2000 and 2010 were retrospectively reviewed. **Results:** A total of 177 women with pathologically confirmed RPOC underwent either D&C (n = 94, 53.1%) or hysteroscopy (n = 83, 46.9%). Mean time to conception was significantly shorter after hysteroscopy than after D&C ( $7.4 \pm 7$  vs  $12.9 \pm 16.8$  months,  $P = 0.037$ ). Rate of occurrence of a newly diagnosed infertility problem was significantly higher following D&C than hysteroscopy (23 [24.5%] vs 10 [12.0%];  $P = 0.034$ ). Etiology of the new problem was mechanical, including tubal occlusion and intrauterine adhesions. Logistic regression comparing both methods revealed that hysteroscopic resection was associated with a significant reduction in the occurrence of a new infertility problem compared with D&C (OR 0.42; 95% CI, 0.18–0.96,  $P = 0.04$ ). **Conclusion:** Hysteroscopic removal of RPOC is associated with a shorter mean time to further conception and a lower rate of occurrence of newly diagnosed infertility problems than D&C.

© 2014 International Federation of Gynecology and Obstetrics. Published by Elsevier Ireland Ltd. All rights reserved.

## 1. Introduction

Retained products of conception (RPOC) describes fetal and/or placental tissue that persists in the uterus following spontaneous abortion, induced abortion, or delivery. It complicates approximately 1% of all pregnancies and is most common after pregnancy termination (both spontaneous and induced), although it may also occur after spontaneous vaginal delivery and cesarean delivery [1–3]. Trauma to the gravid uterus in the postpartum period, after cesarean delivery [4], or after spontaneous or induced abortion [5,6] is considered to be the major cause of intrauterine adhesions (IUAs) and Asherman syndrome, which are manifested clinically by menstrual abnormalities, infertility, and recurrent pregnancy loss [7].

Traditionally, dilatation and curettage (D&C) has been the method of choice for the management of RPOC [8]. Hysteroscopic resection of RPOC is an alternative to nonselective, blind curettage [9] and allows

highly selective removal that is limited to the RPOC without affecting the adjacent endometrium [10].

There is limited data available regarding the reproductive outcome of women who had hysteroscopic resection of RPOC compared with those who had nonselective, blind curettage. A comparison of 24 women who underwent D&C and 46 women who underwent hysteroscopic resection of RPOC revealed similar reproductive outcome in both groups, with a trend to conceive earlier in the hysteroscopy group, but no difference in overall pregnancy rates [11]. In an observational study of 50 women over a 6-year period, hysteroscopic resection of late RPOC was found to be feasible, efficient, and have good reproductive outcome [12]. However, since women who underwent D&C were not included in this study, a comparison between the two treatment modalities was not possible. Finally, a cohort study in 2011 compared the reproductive outcome of patients who underwent ultrasound-guided curettage (n = 42) with those who underwent hysteroscopic resection (n = 53) of RPOC [10]. A statistically significant higher conception rate was found in the patients who underwent hysteroscopy than in those who had curettage. Furthermore, patients who underwent hysteroscopy had a significantly shorter time to conception. However, women with RPOC following spontaneous vaginal delivery were not included in this study and all patients had undergone a previous uterine intervention (D&C or cesarean delivery) [10].

<sup>\*</sup> Corresponding author at: Department of Obstetrics and Gynecology, Assaf Harofeh Medical Center, Zerifin, 70300, Israel. Tel.: +972 8 9779000; fax: +972 8 9778250.

E-mail address: idorit@netvision.net.il (I. Ben-Ami).

<sup>1</sup> This manuscript is dedicated to the late Prof. Reuvid Halperin. Her devotion to her patients and passion for both surgery and research were legendary. She is greatly missed by all who knew her.

In light of the limited and contradictory data in the literature, the aim of the present study was to compare the reproductive outcomes of women who underwent conventional, nonselective, blind curettage with those who underwent hysteroscopic resection of pathologically confirmed RPOC.

## 2. Materials and methods

A computerized retrospective search was conducted to identify women who had undergone removal of RPOC by either blind D&C or hysteroscopy between January 1, 2000, and December 31, 2010, at the Assaf Harofeh Medical Center, Zerifin, Israel. Data on demographic characteristics, operative findings, surgical procedure, and pathologic diagnoses were retrieved from the medical records. Approval for the study was obtained from the Assaf Harofeh Medical Center Institutional Review Board.

D&C was performed according to department protocol for all patients undergoing this procedure. The cervix was dilated to Hegar dilator number 9 with the patient under general anesthesia, and curettage was performed with a metal curette of the appropriate size. Hysteroscopic transcervical resection was carried out with a standard 26 F continuous-flow resectoscope fitted with a 4-mm cutting loop. The uterine cavity was distended with glycine or saline solution administered with a flow-controlled HysteroFlator (Karl Storz, Tuttlingen, Germany). Removal of the RPOC was performed mechanically using the loop and gentle motions without application of current. Misoprostol or other prostaglandins were not used for cervical ripening.

The fertility of the participants was assessed by a review of their medical records and by conducting telephone interviews. After obtaining verbal consent to participate in the study, details regarding fertility, infertility treatment (including ovulation induction and in vitro fertilization), and infertility work-up were acquired over the telephone.

Statistical analysis was performed using the *t* test,  $\chi^2$  test, Fisher exact test, and Mantel–Haenszel test. Calculations were performed by the Tel-Aviv University statistical laboratory using SPSS version 17 (SPSS Inc, Chicago, IL, USA).  $P < 0.05$  was considered statistically significant.

## 3. Results

Between January 2000 and December 2010, 368 women were admitted to the Department of Obstetrics and Gynecology owing to suspected RPOC. All the women in the study group underwent either D&C or hysteroscopic resection of the suspected RPOC. The extracted material was sent for histological examination and the final diagnosis was confirmed by histological examination. In 244 (66.3%) patients the diagnosis of RPOC was confirmed. Of these, 67 were excluded: seven who did not wish to participate and 60 who were lost to follow-up. Reproductive outcomes were analyzed for the remaining 177 (72.5%) women. Of these, 94 (53.1%) had undergone D&C and 83 (46.9%) had undergone hysteroscopic resection of RPOC.

There were no differences in the demographic data, obstetric history, or mode of conception preceding the RPOC between the two study groups (Table 1). More women with RPOC after spontaneous delivery underwent hysteroscopy as compared with D&C (50 [60.2%] vs 34 [36.2%];  $P = 0.002$ ), whereas more women with RPOC after abortion underwent D&C as compared with hysteroscopy (60 [63.8%] vs 33 [39.8%],  $P = 0.002$ ).

Regarding the clinical symptoms at admission, there were no significant differences in the rate of vaginal bleeding and fever between women treated with hysteroscopy and those treated with D&C ( $P > 0.05$ ); however, more women who presented with abdominal pain were treated with D&C than with hysteroscopy (25 [26.6%] vs 7 [8.4%];  $P = 0.002$ ) (Table 2). Furthermore, the time interval from delivery or abortion to the diagnosis of suspected RPOC was significantly longer in women who were treated with hysteroscopy than in those treated with D&C

**Table 1**  
Characteristics of the study group (n = 177).<sup>a</sup>

Characteristics	Hysteroscopy (n = 83)	D&C (n = 94)	P value
Age, y	30.5 ± 5.9	30.4 ± 6.3	0.97
Smoking	23 (27.6)	36 (38.2)	0.102
Pregnancy preceding RPOC			0.002
Delivery	50 (60.2)	34 (36.2)	
Abortion	33 (39.8)	60 (63.8)	
Gestational age at delivery, wk	39.0 ± 1.6	39.4 ± 1.3	0.319
Gestational age at abortion, wk	9.4 ± 3.4	10.1 ± 3.7	0.387
Mode of conception preceding RPOC			0.098
Spontaneous	72 (86.7)	88 (93.6)	
Assisted reproductive technologies	11 (13.3)	6 (6.4)	
Obstetric history			
Gravidity	2.6 ± 1.9	2.8 ± 2	0.639
Parity	1.6 ± 1.5	1.5 ± 1.3	0.483
Previous cesarean delivery			0.547
0	72 (86.8)	79 (84)	
1	7 (8.4)	9 (9.6)	
≥2	4 (4.8)	6 (6.4)	
Previous missed abortion (first trimester)			0.745
0	61 (73.5)	66 (70.2)	
1	14 (16.9)	19 (20.2)	
≥2	8 (9.6)	9 (9.6)	
Previous missed abortion (second trimester)			0.454
0	80 (96.4)	90 (95.7)	
1	2 (2.4)	4 (4.3)	
≥2	1 (1.2)	0 (0)	
Previous induced abortion (first trimester)			0.241
0	57 (68.7)	53 (56.4)	
1	20 (24.1)	32 (34.0)	
≥2	6 (7.2)	9 (9.6)	
Previous induced abortion (second trimester)			0.359
0	78 (94.0)	91 (96.8)	
1	5 (6.0)	3 (3.2)	

Abbreviations: D&C, dilatation and curettage; RPOC, retained products of conception.

<sup>a</sup> Values are given as number (percentage) or mean ± SD unless otherwise indicated.

Download English Version:

<https://daneshyari.com/en/article/6186833>

Download Persian Version:

<https://daneshyari.com/article/6186833>

[Daneshyari.com](https://daneshyari.com)