Cairo University

KASR ALAINY

Role of hysteroscopy in evaluation of Recurrent Pregnancy Loss.

Thesis

Submitted for the partial fulfillment of Master Degree in Obstetrics and Gynecology.

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Regards,

SALEM ALBHAISI

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List of Abbreviations

Short form	Elaboration
ACL	Anticardiolipin
ACOG	American Collage of Obstetricians and Gynecologists
APA	Antiphospholipid antibody.
APS	Antiphospholipid syndrome.
ART	Assisted reproductive technology.
AUB	Abnormal uterine bleeding.
HSG	Hysterosalpingography.
IVF	In vitro Fertilization
LPD	Luteal phase defect.
PCOS	Polycystic ovary syndrome
RM	Recurrent misscarriage.

Abstract

Objective: To assess the prevalence of uterine anatomical abnormalities found by office diagnostic hysteroscopy in a population of patients experiencing more than two consecutive miscarriages.

Design: Retrospective prevalence study.

Setting: The gynecological unit of Kasr Al Aini university teaching hospital.

Methods: A cross-sectional study of 100 patients with two or more consecutive miscarriages diagnosis was conducted. They underwent an outpatient diagnostic hysteroscopy study, with either congenital or acquired abnormalities of the uterine cavity being identified.

Results: Uterine changes were found in 29 (29%) patients, with 16 cases of congenital anomly [septate uterus (11 cases), bicornuate uterus (3 cases), and unicornuate uterus (2 case)], and 13 patients with acquired changes in 11 cases [intrauterine adhesions (7 cases), endometrial polyp (3 cases), and submucous myoma (3 cases)].
No significant differences were found between the groups as regarding both acquired and congenital uterine changes. A positive correlation was found between anatomical and acquired anomalies on hysteroscopy and the occurrence of miscarriages.

Conclusion: Patients with more than two miscarriages have a high prevalence of uterine cavity abnormalities diagnosed by hysteroscopy, septate uterus was the most common anomaly and for this reason uterine anomalies should be systematically assessed in patients with previous unexplained recurrent miscarriage.

Keywords: Abortion, habitual; hysteroscopy; uterine diseases; congenital Abnormalities.

INTRODUCTION

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Recently methodological and technological improvement results that diagnostic and operative hysteroscopy be more cost effective, efficient raising pregnancy rate **(Bosteels, Kasius *et al.*, 2015)**, safe, and useful in infertile patients **(Carneiro, 2014)**.

When the implantation successfully happened in the uterine cavity by the adhesion between the blastocyst and the endometrium **(Quaranta, Erez *et al.*, 2015)**, human life starts. After one year of trying to get pregnant, infertility is diagnosed. Primary defined if no conception happened before and secondary in previous conception. About 40% of infertile couples due to multiple causes **(F., Hacker MD *et al.*, 2010)**.

It is known that the uterine abnormalities, such as polyps, fibroids, septa or adhesions, may disturb the pregnancy. The uterine anomalies distribution and frequency are similar in patients with two or more consecutive miscarriages and the diagnostic hysteroscopy can be recommended after two miscarriages **(B. Seçkin1, E. Sarikaya1 *et al.*, 2012)**.

The management of these abnormalities using hysteroscopy as inspecting device might therefore enhancing the pregnancy either spontaneously or after specialized fertility treatment, such as intrauterine insemination or in vitro fertilization **(Bosteels, Kasius *et al.*, 2013, Bosteels, Kasius *et al.*, 2015)**. Nevertheless, even for experienced gynecologists the hysteroscopy diagnosis of the major uterine cavity abnormalities may be problematic **(Güven, Bakay *et al.*, 2012)**.

About 70-75% of all conceptions fail **(F., Hacker MD *et al.*, 2010)**, of those that are recognized, 15-20% result in spontaneous abortions (SABs) or ectopic pregnancies **(Petrozza, 2012)**. Unexplained subfertility can be found in 30% to 40% of subfertile couples **(Güven, Bakay *et al.*, 2012)**. Intrauterine adhesions are in 0.3% to 14% of subfertile women **(Fatemi, Kasius *et al.*, 2010)**, uterine septum is present in 1% to 3.6% of women with otherwise unexplained subfertility **(Saravelos, Cocksedge *et al.*, 2008)**.

Recurrent pregnancy loss (RPL) is the most stressful form of abortions for patients and doctors **(Carp , Barranger, Gervaise *et al.*, 2002, Jeve and Davies 2014). Petrozza (2012)**, it is defined as three or more consecutive pregnancy losses before the 20th week of gestation **(Sierra and Stephenson, 2006)**. Most investigators agree that both ectopic and molar pregnancies should not be included in the definition **(Petrozza 2012)**.

The prevalence of uterine malformation is 6.7% in the general population, slightly higher 7.3% in the infertility population, and more

in women's with a history of recurrent miscarriages 16% **(Bosteels, Weyers *et al.*, 2010)**.

The significance of uterine polyps and leiomyoma in RPL is unclear; they can interfere with fertility **(Bailey, Jaslow *et al.*, 2015)**, creating a hostile environment to embryo implantation. With about 41% of women having leiomyoma, especially sub mucous one, could abort **(Trivedi and Abreo 2009, Desai and Patel 2011)**.

Aim of the work

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The usage of hysteroscopy to assess the prevalence and types of uterine defects in patients with recurrent pregnancy loss (RPL).