



CLINICAL EFFECT OF YASMIN AFTER ARTIFICIAL ABORTION

Gynaecology

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ABSTRACT

Objective: To observe the clinical effect of contraceptive Yasmin after artificial abortion.

Methods: 300 cases of termination of pregnancy patients were randomly selected in our hospital and randomly divided into a control group and an observation group, 150 cases in each group. The two groups were treated with basic antibiotics treatment. The observation group further treated with Yasmin. The duration of menstruation, menstrual volume, the postoperative outcome of the duration of menstruation, endometrial thickness, contraceptive rate and adverse drug reactions between the two groups were compared.

Results: Compared with the control group, the postoperative duration of vaginal bleeding in the observation group was shortened. The amount of bleeding was decreased, the difference was significant ($P < 0.05$). The growth of endometrium in the observation group was better than the control group, which have significant differences between the two groups ($P < 0.05$). The contraceptive rate of the observation group was 100%.

Conclusion: After abortion oral Yasmin can effectively reduce the postoperative duration of vaginal bleeding and bleeding volume. It can promote endometrial growth and has a good contraceptive effect and less adverse effect. Oral Yasmin is conducive to the recovery of patients after artificial abortion surgery. Application is worth in clinical.

KEYWORDS

Yasmin; artificial abortion; effect

INTRODUCTION

Artificial abortion refers to the termination of pregnancy by an artificial method due to accidental pregnancy, disease, and other reasons is a remedial method of contraception failure gradually accepted by people at present^[1]. Relevant data show that the rate of abortion is increasing year by year in China. With various short-term and long-term serious complications, induced abortion seriously affects the health and life of patients. It is necessary to apply relevant drugs to promote postoperative recovery and improve the postoperative condition of patients. Yasmin is a kind of contraceptive widely used in clinical practice, whose main components are drospirenone and ethinyl estradiol. Recent studies have shown that application of Yasmin after artificial abortion can help patients recover and reduce postoperative complications^[2]. This study analyzed the females who received the abortion in our hospital as an example, to explore the clinical effect of Yasmin on the postoperative period after artificial abortion.

MATERIAL & METHODS

Study design, settings and participants:

It was a hospital based prospective study conducted over a period of one and half year from May 2015 to December 2016 in a tertiary care teaching hospital in which 300 pregnant women who were in demand for abortion were selected. The inclusion criteria were: age 20 to 38 years old, 6 weeks to 10 weeks of pregnancy, healthy, regular menstruation, ultrasound proved intrauterine early pregnancy in our hospital, no contraindications of artificial abortion. Patients were randomly divided into two group a) Observation group -150 subjects and b) control group-150 subjects. In observation group Yasmin was given. We informed the function of Yasmin, benefits of applying the Yasmin and possible adverse reactions in observation group before signing the informed Consent.

Surgery

Artificial abortion was performed by the same physician, and all

patients underwent the same surgical procedure. All patients were given anti-infective treatment after artificial abortion, and other contraceptive measures such as intrauterine device or condom were used in the control group. The observation group started oral administration of Yasmin (Bayer HealthCare Co., Ltd.) immediately after surgery (day Oral on time, 1 tablet/day, a course of treatment lasts 21 days, continuous treatment for 3 courses). The ultrasound was reviewed in the hospital 21 days late and endometrial recovery was checked, other observation indicators were followed up by telephone at the later stage for 3 months without loss of follow-up.

Study tools

A semi-structured interview schedule was designed, pretested and used for data collection. Following data were collected:

(1) Time of vaginal bleeding: Time of vaginal bleeding after artificial abortion; (2) Amount of vaginal bleeding: compared with normal menstrual flow before induced abortion; (3) Menstrual cycle and menstrual quantity: whether regular menstruation can be restored in the first month after surgery; (4) Endometrium thickness: the endometrium thickness was checked by ultrasound on the 21st day after surgery; (5) Contraceptive rate; (6) Adverse drug reactions: irregular menstruation, excessive menstruation, nausea and emotional fluctuations caused by drugs during the administration.

Statistical analysis

Data were analyzed and statistically evaluated using SPSS software, version 17 (Chicago IL, USA).^[3] Quantitative data was expressed in mean, standard deviation while qualitative data were expressed in percentage. Statistical differences between the proportions were tested by chi square test or Fisher's exact test. 'p' value less than 0.05 was considered statistically significant.

Ethical issues

All participants were explained about the purpose of the study.

Confidentiality was assured to them, along with informed written consent. The study was approved by the Institutional Ethical Committee.

RESULTS

Comparing the general data of the two groups of patients, the average age of the observation group was 26.31 ± 4.17 years and control group was 26.94 ± 4.72 years. The average number of days of pregnancy in the observation group was 55.73 ± 10.41 days and in control group was 54.73 ± 9.67 days and the differences between the two groups were not statistically significant ($P > 0.05$).

As shown in table 1, compared with the control group, the duration of vaginal bleeding in the observation group was significantly shortened, the amount of vaginal bleeding was significantly lower, and the growth of endometrium (Figure 1A and B) and contraception rate were superior to the control group, with statistically significant differences ($P < 0.05$). The follow-up of 3 months after the operation found that four people in the observation group did not restore regular menstruation, and the recovery rate was 97.3%. In the control group, 20 patients failed to restore regular menstruation, and the recovery rate was 86.7%. The rate of oral birth control after artificial abortion was 100%. Total four patients in the observation group were developed adverse drug reactions during the follow-up period, including 2 cases of irregular menstruation, 2 cases of nausea, and no other adverse reactions such as excessive menstruation, abdominal pain, and fever.

DISCUSSION

In recent years, with painless abortion propaganda, the abortion rate increased year by year in China. Abortion is a kind of contraceptive failure remedies gradually accepted by the people. The abortion method includes surgical abortion (<10 weeks of gestation) and medical abortion (48 days or less, pregnancy age <40), whichever method people choose, will cause an adverse effect on women's health and also even life-threatening. Common postoperative complications of abortion include irregular and excessive bleeding, uterine perforation, the comprehensive reaction of artificial abortion, leakage or empty suction, long-term complications include cervical adhesion, uterine cavity adhesion, chronic pelvic inflammation, menstruation disorders, secondary infertility, etc. The incidence of complications of induced abortion increases with the increase of abortion rate. These short-term complications seriously affects women's physical and mental health. It has been reported that the proportion of secondary infertility caused by artificial abortion in infertile people is about 88.7% [4]. The recovery of ovulation after artificial abortion only takes about 2 to 3 weeks, and the fertility of women with abortion can be quickly restored. However, most women mistakenly believe that they will not get pregnant again soon after induced abortion, fail to take effective contraception after the operation. On the other hand, around 25 years old, sex life is more active for the high incidence of abortion age, so after abortion, effective contraception should be adopted to avoid accidental pregnancy, reducing the rate of recurrent induced abortion for the protection of women's physical and mental health is great significance.

As a new oral contraceptive pill applied in clinical practice, Yasmin can be used for postoperative contraception. In this study, the incidence of postoperative birth control in 150 patients in the observation group was 100%. The principle of Yasmin contraception is mainly to inhibit ovulation, thickening of cervical mucus which hampering the transport of sperm and interfere with the implantation of the embryo, which can enable the patient to effectively use contraception after the operation. Artificial abortion can damage the endometrium base layer, resulting in functional layer growth disorder. In this study, compared with the control group, the results showed that taking the contraceptive immediately after the artificial abortion can effectively repair the damaged endometrium, and significantly reduce the postoperative complications of induced abortion. The analysis reasons are related to the following factors: Firstly, Yasmin is a compound preparation of ethinyl estradiol and drospirenone, containing 0.03 mg of ethinyl estradiol and 3 mg of drospirenone, with pharmacological properties close to that of natural progesterone [5], which helps to repair damaged endometrium. Ethinyl estradiol can repair the damaged endometrium, so it can shorten the duration of menstruation and reduce the amount of bleeding. Secondly, drospirenone can maintain the thickness of the endometrium, promote the atrophy, absorption and excretion of decidua, thicken the cervical mucus, form a mucus plug in the cervical region to block the bacterial

uplink infection in the vagina, inhibit the expression of inflammatory factors, and reduce the role of pelvic inflammation in preventing infection [6]. Thirdly, Yasmin contains a small amount of estrogen, which can effectively regulate the hypothalamic-pituitary-ovary axis, which can regulate the cyclical changes of the endometrium. Estrogen acting on the proliferation stage can gradually thicken the endometrium. Fourthly, the estrogen-progesterone in Yasmin can restore the endometrium and ovarian function, and help patients to recover their regular menstrual cycle as soon as possible. Therefore, oral Yasmin after artificial abortion can promote endometrial repair, to a certain extent reducing the complications of induced abortion, as well as reducing the incidence of menstrual abnormality. Due to some side effects of hormones, oral contraceptives have relative contraindications, such as hematological or thrombotic diseases, endocrine-related neoplastic diseases, and severe cardiovascular diseases [7]. By identifying women who are not suitable for use, we can make Yasmin better for women.

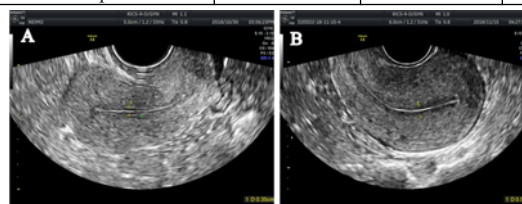
To sum up, at present, abortion has gradually become the preferred remedy for contraceptive failure. However, with the rise of abortion rate, adverse prognosis and serious complications caused by multiple abortions have seriously affected women's physical and mental health. On the one hand, it is necessary for doctors to explain the postoperative complications of abortion, especially young women in pregnancy, and popularize relevant knowledge of contraception. On the other hand, effective contraceptive can help the patients to recover their health, reduce the incidence of recurrent abortion and reduce the occurrence of short-term and long-term complications of induced abortion, which is of great significance to protect women's health. By reducing the amount and shortening the time of vaginal bleeding, it is more beneficial to the recovery of the menstrual cycle and the repair of the endometrium, and can effectively reduce postoperative complications and promote the postoperative recovery of patients. The postoperative use of Yasmin contraceptive effect is significant, which is conducive to women's physical and mental health and worthy of clinical promotion [8].

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Competing Interests: The authors have declared that no competing interest exists.

Table 1: Comparison of blood loss, bleeding time, endometrial thickness and birth control rate between two groups after treatment

		Observation Group (N=150)	Control Group (N=150)	P value
Bleeding time (days)		4.09 ± 3.54	6.69 ± 4.84	<0.01
Endometrial thickness (mm)		5.15 ± 1.57	3.73 ± 1.79	<0.001
Menstrual volume	Less	12 (8.0%)	92 (61.3%)	<0.01
	Equal	98 (65.3%)	50 (33.3%)	
	More	8 (5.3%)	40 (26.7%)	
Contraceptive rate		100%	94.7%	<0.01



Figures 1: The thickness of endometria test by ultrasound in the observation group (A) and the control group (B).

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