

Observation of clinical efficacy of yousiyue for endometrium regeneration after superconducting visual abortion and its nursing

Li Yan and Li Li*

Department of Gynaecology, Qingdao Women and Children's Hospital, Qingdao, China

Abstract: Present study is carried out to observe and analyze the curative effect of Yousiyue (Drospirenone and Ethinylestradiol tablets) on endometrium regeneration after superconducting visual abortion and explore the nursing mode. A total of 150 patients who underwent superconducting visual abortion in our hospital were enrolled and divided into study and reference groups with 75 patients each according to random grouping. Both groups were treated with vaginal ultrasonography-mediated abortion. The study group was treated with Yousiyue after the operation plus comprehensive nursing intervention program. The reference group only received general routine nursing and treatment. The treatment outcomes of the two groups were compared. Comparison of endometrial thickness, menses return time and menstrual reduction rate reveals significant advantage of study group over reference group, $p < 0.05$; study group has an overall satisfaction significantly higher than the reference group, $p < 0.05$. The implementation of Yousiyue in endometrium regeneration after superconducting visual abortion can receive good results, which is worthy of popularization and application.

Keywords: Yousiyue, superconducting visual abortion, endometrium regeneration, efficacy, nursing intervention.

INTRODUCTION

Interruption of pregnancy using artificial or medical methods within 3 months of pregnancy is known as termination of early pregnancy, or abortion. It is used as a remedy for unintended pregnancy after contraception failure, also applicable to those unfit for pregnancy owing to illness, and those demanding termination of pregnancy to prevent congenital malformation or hereditary disease (Gong, *et al.*, 2016; Cheng, 2015). There are two kinds of abortion: surgical abortion and medical abortion. Common methods include artificial abortion-vacuum aspiration, dilatation clamp and curettage and medical abortion.

Due to issues such as long bleeding time and easy incomplete drug abortion in medical abortion, artificial abortion (Shown as fig. 1) plays a very important role in terminating early pregnancy.

It is widely used in clinical practice and is easily accepted by patients because of its simplicity and convenience, as well as safety and reliability. In addition, provision of scientific and effective nursing intervention during the patient's abortion is also an important guarantee for treatment safety. This study is designed to observe and analyze the efficacy of Yousiyue for endometrium regeneration after superconducting visual abortion and the following report is made by summarizing the nursing interventions.

MATERIALS AND METHODS

General information

The 150 healthy women of childbearing age who were admitted to our hospital from June 2015 to May 2018 were selected as subjects, all of whom had first pregnancy and voluntarily request termination of early pregnancy. This paper has a rigorous structure and the conclusion has been approved by relevant ethics and relevant departments. An image picture of pregnancy patient is shown in fig. 2. The patients were divided into study group and reference group with 75 cases each according to random grouping. Where, the study group ranged in age from 20 to 32 years old, with an average \pm SD values of (25.8 ± 3.2) years. The menstruation cessation time was between 42 and 60 days, with an average of (48.4 ± 3.0) days. Based on B ultrasound of the gestational sac location and size, the menstruation cessation time was consistent with gestational sac size in average maximum diameter of (22.02 ± 1.29) mm. The study group ranged in age from 22 to 33 years old, with an average of (26.3 ± 3.8) years. The menstruation time was between 40 and 58 days, with an average of (46.2 ± 2.5) days. Based on B ultrasound of the gestational sac location and size, the menstruation cessation time was consistent with gestational sac size in average maximum diameter of (21.35 ± 1.30) mm. Gynecological inflammation was excluded before operation in both groups. Comparison of the data of the two groups revealed comparability, $p > 0.05$.

Method

(1) Treatment method. Both the study group and the reference group were plugged with $200\mu\text{g}$ misoprostol tablets in the vagina before the operation to soften cervix,

*Corresponding author: e-mail: andy197823@163.com

and artificial abortion (vacuum aspiration) was performed under vaginal ultrasonography, as shown in fig. 1 below. After the operation, the subjects were administered with motherwort capsules on a routine basis for three times a day with two tablets each time. Combined use of cefaclor tablets for 3 days was instructed to promote uterus contraction and to actively prevent infection. The reference group did not take any contraceptive medication after the operation, while the study group took Yusiuyue (Drospirenone and Ethinylestradiol tablets, Schering GmbH & Co. Produktions KG, Germany) after eight hours of the operation, with one tablet each night. One cycle is three weeks. At one week after drug withdrawal, the cycle was repeated. The treatment consisted of three repetitions of cycle in this manner. All cases were banned from bathing and sexual life for one month after surgery.

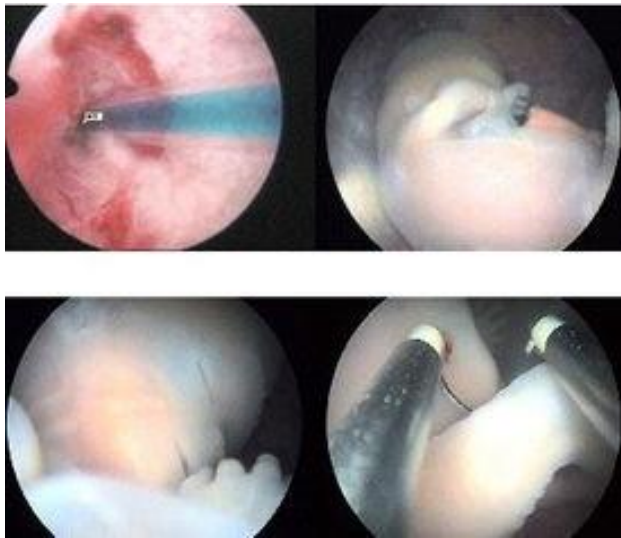


Fig. 1: Artificial abortion

(2) Nursing methods. In the reference group, only general perioperative nursing was performed, that is, psychological guidance, health education, medication, etc. On this basis, the study group was given perioperative comprehensive nursing intervention with the main contents as follows:

First, preoperative nursing intervention. Medical staff should introduce the patient to the knowledge of superconducting visual abortion, explain the advantages and safe reliability of this method to eliminate the patient's psychological stress and negative emotions such as fear, nervousness and anxiety; do a good job in environmental nursing of the abortion room, make the room clean and tidy with fresh air, appropriate temperature and humidity, which helps to smooth the patient's emotions (Liu, *et al.*, 2015); conduct active communication with the patient; pay attention to show respect and care as well as patient privacy protection; instruct the patient to have 2h water fasting and 4h food fasting before the surgery to avoid vomiting during surgery as well as complications such as postoperative

lung infection and asphyxia due to aspiration; strictly assess the patient's physical condition, carefully check indications, contraindications and determine surgical operation. Inform the patient and family members of the possible risk factors in the operation and illustrate the low risk rate to eliminate the patient's panic and improve treatment compliance; lead the patient to the abortion operating room after full urination and use of sanitary pad by the patient; in addition, it is necessary to strictly check various first-aid medicines, respirators and ensure their normal application state.

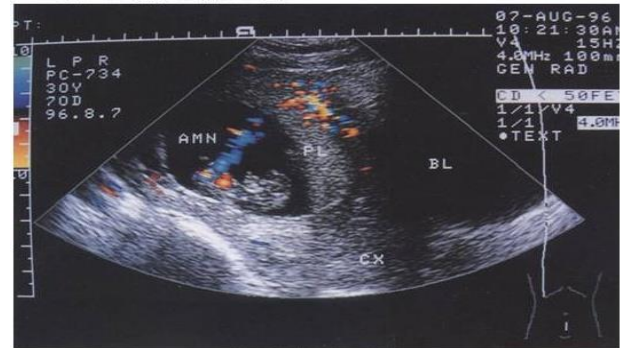


Fig. 2: An image picture of pregnancy patient

Second, intraoperative nursing intervention. Instruct the patient to correctly lie on the operating table, separate and fix the legs, make connection with the ECG monitor with oxygen, provide routine vaginal examination and determine uterine position, strictly perform vaginal irrigation and disinfection, start anesthesia with propofol; closely monitor patient's changes in vital signs, complexion, etc. during surgery; strictly follow standard procedures throughout the entire surgical procedure and ensure gentle movements to avoid trauma; give positive encouragement to the patient.

Third, postoperative nursing intervention. After the operation, help the patient wear the underwear and send the patient to the observation room; let the patient take the lying position, strictly keep the patient warm, and monitor the patient's vital sign changes and vaginal bleeding (Lessey, Kim, 2017; Whitaker, *et al.*, 2017). After half an hour, the patient can be discharged from the hospital if she has a clear sense of consciousness without discomfort. Before the discharge, explain in detail post-abortion precautions to patients and their families. In addition, instruct the patient to prevent pelvic infections, pay attention to rest and strengthen nutrition, observe vaginal bleeding and secretions. Pay attention to personal hygiene and take re-examination in the hospital regularly.

Observation indicators

Indicators like endometrial thickness, menses return time and menstrual reduction rate were compared between the two groups. The self-made nursing satisfaction questionnaire of our hospital was used to count the patient's nursing satisfaction, including the three criteria of very satisfied, satisfied and dissatisfied.

Table 1: Comparison of post-treatment endometrial thickness in both groups ($\bar{x} \pm s$)

Group	Case number	3rd week after surgery	8th week after surgery	12th week after surgery
Study group	75	10.78±1.90	11.38±1.65	12.80±1.66
Reference group	75	7.30±1.55	8.04±1.59	9.07±1.20
t		10.29	9.48	10.12
p		<0.05	<0.05	<0.05

Table 2: Comparison of menses return time and menstrual reduction rate between the two groups

Group	Case number	Menses return time(day)	Menstrual reduction rate (%)
Study group	75	30.15±1.90	2(2.67)
Reference group	75	44.38±3.20	18(24.00)
t/ χ^2		6.49	8.30
p		<0.05	<0.05

Table 3: Comparison of overall nursing satisfaction between the two groups [n(%)]

Group	Case number	Very satisfied	Satisfied	Dissatisfied	Overall nursing satisfaction
Study group	75	65	10	0	75(100.00)
Reference group	75	30	30	15	60(20.00)
χ^2					13.28
p					<0.05

STATISTICAL ANALYSIS

The statistical analysis software used was SPSS21.0. Where, the measurement data were expressed by mean \pm average ($\bar{x} \pm s$), t was used for comparison between groups; the count data was expressed by natural number (n) and percentage (%), while χ^2 was used for comparison between groups. $p < 0.05$ indicates statistical value.

RESULTS

Comparison of post-treatment endometrial thickness in two groups

As shown in table 1 below, comparison of post-treatment endometrial thickness shows significant advantage of study group over reference group, $p < 0.05$.

Comparison of menses return time and menstrual reduction rate between the two groups

According to table 2 below, comparison of menses return time and menstrual reduction rate between the two groups indicates obvious advantage of study group over reference group, $p < 0.05$.

Comparison of overall nursing satisfaction between the two groups

According to table 3 below, comparison of the overall nursing satisfaction of the two groups shows significant advantage of the study group over the reference group, $p < 0.05$.

DISCUSSION

At present, artificial abortion operation has become one key measure to terminate early pregnancy. However, operation with surgical instruments will increase the risk of damage to endometrium. For patients with repeated abortions, it can easily induce damage to basal layer of the endometrium, triggering irreversible damage to the endometrium. Superconducting visual abortion is to directly observe uterus development status and location, size and shape of intrauterine gestational sac under ultrasound monitoring, in which, suction tube is guided to the uterine cavity to align the gestational sac using vaginal probe, so that risks of uterine perforation, irreversible damage of the endometrium, tissue residual and massive haemorrhage caused by blind and repeated operation can be avoided (Zhang, *et al.*, 2017; Luo, Ma, 2017; Jeong, *et al.*, 2017). After the operation, transvaginal ultrasound review can prevent intrauterine hemorrhage owing to tissue retention or poor uterine contractions, thereby avoiding infection.

Studies have shown (Rekawiecki, *et al.*, 2017) close correlation between endometrial thickness with estrogen and progesterone levels after artificial abortion. Yousiyue, a new oral contraceptive, has such main ingredients as drospirenone and ethinyloestradiol. Drospirenone is a progestin with pharmacological properties closest to natural progesterone. Drospirenone and ethinylestradiol tablets simulate the changes of physiological cycle hormones in normal female, promote the maintenance of endometrial thickness and accelerate endometrium

regeneration while preventing intrauterine adhesions, pelvic inflammatory disease, endometriosis. Estrogen can significantly up-regulate some adhesion-promoting factors that cause intrauterine adhesions, such as matrix metalloproteinase 9 and transforming growth factor-B. Hence, oral administration of Yousiyue can inhibit endometrial fibrosis, rapid withdrawal bleeding after drug withdrawal and avoid intrauterine adhesions. Taken on the first day after artificial abortion operation, it can create a barrier between the two layers of endometrium to avoid endometrial adhesions. In addition, it simulates female's normal menstrual cycle and promotes the recovery of normal menstrual cycle (Liu, *et al.*, 2017; Karaahmet, *et al.*, 2017; Peng, *et al.*, 2016). On the one hand, it promotes endometrium regeneration and procoagulant function. On the other hand, it can reduce vaginal bleeding time and vaginal bleeding amount after artificial abortion, playing a role in inhibiting ovulation and achieving contraceptive effect (Sanal, *et al.*, 2017; Esim, *et al.*, 2018; Gao, *et al.*, 2017; Saldanha, *et al.*, 2017).

CONCLUSION

In summary, the implementation of Yousiyue for endometrium regeneration after superconducting visual abortion can achieve relatively good results with high safety. In addition, combined positive comprehensive nursing intervention program can significantly enhance the treatment effect and promote fine regeneration of the endometrium. Therefore, it is worth promoting.

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