

## Informed consent

Project Name	Hysteroscopic septum resection for spontaneous pregnancy in patients with non-recurrent miscarriage  A multicenter, prospective, randomized, controlled clinical study on pregnancy outcomes
Research Institutes	The Third Xiangya Hospital of Central South University
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Sponsor	The Third Xiangya Hospital of Central South University
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We sincerely invite you to participate in a multicenter study on the effect of hysteroscopic septectomy on spontaneous pregnancy outcomes in women with non-recurrent miscarriage.

This is a prospective, randomized, controlled clinical study. Your participation in this study is completely voluntary and you can choose not to participate.

If you decide not to participate, this will not affect your relationship with your doctor.

It is important to understand the details of this study. Please read the following information carefully and share with your

If there is anything you do not understand or you would like to know more about this study

Please always ask your doctor for more information.

### 1. Research background

Septate uterus is a congenital uterine malformation in women.

The most common uterine malformation in the United States is uterine anomaly (CUA), accounting for 35% of such anomalies and is associated with recurrent miscarriage, infertility, premature birth,

The effect of uterine septate on pregnancy is determined by the size, thickness, and vascularization level of the septum.

It is one of the most detrimental malformations associated with reproductive outcomes.

The American Society of Female Genital Anomalies (AFS) revised the classification system for uterine septate development into complete uterine septate development.

There are two subtypes: (a) and (b), which are collectively classified as type V.

Society for Reproductive Medicine (ASRM) proposed two numerical indicators: mediastinal length greater than 1 cm

If the angle formed by the septate structure and the indentation of the endometrium at the fundus is less than 90°, it can be diagnosed as an incomplete septate uterus.

There are many diagnostic methods. In 2024, ASRM recommended the use of three-dimensional transvaginal ultrasound with or without saline instillation.

It is a first-line non-invasive diagnostic tool for the assessment of uterine morphology (level B evidence).

The diagnosis was confirmed by combined hysteroscopy and laparoscopy.

In recent years, hysteroscopic transcervical resection of septa (TCRS) has been widely used in

It has been widely used in clinical practice and is the standard procedure for correcting uterine septate.

Incision, monopolar or bipolar electrode incision, laser incision, etc. Duration of hysteroscopy, residual endometrium after surgery, number of surgeries

The number of patients with uterine septate is very important for the postoperative prognosis.

The appropriate surgical method is selected based on the patient's own skills, hospital conditions and the patient's specific situation.

Careful operation should be performed during the operation to avoid complications such as uterine perforation, protect the endometrium as much as possible, and restore the endometrium as much as possible during the first operation.

The morphology of the uterine cavity should be adjusted. If necessary, the cohesive bilateral walls should be cut open. Postoperative intervention measures should be taken to reduce the occurrence of postoperative uterine adhesions.

Only by giving birth can the best effect of treating uterine septate be achieved.

The existing literature on the effect of hysteroscopic uterine septum resection on the outcome of natural pregnancy in patients with uterine septum is

In observational studies, non-randomized controlled trials, and other studies, whether hysteroscopic septum resection should be performed routinely before natural pregnancy attempts has not been reported.

The 2024 ASRM guideline on uterine septate recommends informing women with infertility and/or those undergoing fertility treatment of

In patients undergoing treatment, mediastinectomy may not necessarily improve the live birth rate. Given the limitations of the literature and the low risk of surgery,

The guidelines recommend that patients be offered mediastinectomy under a shared decision-making model (level B evidence).

Offer hysteroscopic septectomy to patients with septum and a history of recurrent miscarriage (evidence strength: B; recommendation strength: moderate).

Current randomized controlled studies have problems such as small sample size, unstable indicators, and low test efficiency.

The random allocation and concealed allocation schemes, as well as whether blind methods were used to evaluate efficacy, were not described in the studies, which indicates selective

There is a need for high-quality, large-sample, prospective, randomized, controlled, multicenter clinical trials using adequate

Randomization, unified inclusion and exclusion criteria and treatment regimens to provide stronger evidence to guide planning for natural pregnancy attempts in women with uterine septate

The clinical treatment of patients aims to improve the uterine environment, enhance their fertility and improve pregnancy outcomes.

To this end, our research group plans to conduct a multicenter, prospective, randomized controlled clinical study, mainly targeting the population

Patients with uterine septate who planned to try to conceive naturally were divided into two groups: one group underwent hysteroscopic septum resection (surgical

The other was a non-surgical group (control group) that received routine pre-pregnancy counseling and observation, and also included a group that received hysteroscopy and laparoscopy as treatment.

Comparison of live birth rate, clinical pregnancy rate, and ongoing pregnancy rate between the two groups in infertile patients who were trying to conceive naturally

Indicators such as TCRS provide evidence-based medical evidence for the treatment of patients with uterine septate who plan to try to conceive naturally.

The study will also include the effects of hysteroscopy and laparoscopy as treatment methods on the outcome of postoperative natural pregnancy attempts and their clinical application value.

The two groups were divided into two groups: the first group was selected for infertility patients who wanted to try to conceive naturally. The live birth rate, pregnancy rate, and premature birth rate were compared between the two groups.

To provide evidence-based medical evidence for the treatment of patients with uterine septate who are planning to try to conceive naturally and to evaluate the TCRS

The impact on the outcome of natural pregnancy attempts after surgery and its clinical application value.

## 2. Research objectives

Comparison of hysteroscopic septate uterine resection versus non-surgical (conservative observation) in women with septate uterus and non-recurrent miscarriage

The impact on natural pregnancy outcomes, as well as the treatment of other infertility factors for infertile patients aiming to conceive naturally

(Such as laparoscopic treatment of fallopian tube factors or hysteroscopic fallopian tube catheterization, etc.). This study will provide

Provide evidence-based medicine for the treatment of patients with septate uterus to guide clinical decision-making.

## 3. Research content

This study was based on hysteroscopic septum resection and non-surgical treatment as control.

Effect of lower hysterectomy on spontaneous pregnancy outcomes in patients with non-recurrent spontaneous abortion.

### Inclusion Criteria

(1) The patient meets the 2024 ASRM diagnostic criteria for uterine septate after 3D color Doppler ultrasonography;

(2) The patient may have never been pregnant, or may have a history of live birth, one biochemical pregnancy, or one fetal arrest, or may be an infertile patient but

Those who wish to conceive naturally, such as those who have undergone laparoscopic stoma for hydrosalpinx and those whose infertility factors can be treated;

(3) aged between 20 and 40 years old;

(4) planning to try to conceive naturally to achieve the desire to have a baby;

(5) normal ovarian reserve function (AMH>1.1ng/ml, FSH<12U/L on the 2nd to 5th day of menstruation);

(6) The man's semen is generally normal;

(7) Signed the informed consent form and accepted and adhered to the treatment and follow-up. Patients in the control group could undergo hysteroscopy or laparoscopy.

Surgery is performed to treat other problems, but mediastinectomy is not performed.

#### Exclusion criteria

(1) Recurrent spontaneous abortion;

(2) Patients with uterine intramural fibroids larger than 3 cm and moderate to severe intrauterine adhesions;

(3) Uncontrolled endocrine disorders, such as abnormal thyroid function (abnormal FT3 and FT4), hyperprolactinemia, etc.

2 times the upper limit of normal), combined with uncontrolled endometrial hyperplasia, combined with EIN or malignant lesions, reproductive system

Acute inflammation of the system, coagulation disorder, etc. If combined with endometrial polyps or submucosal myoma, it can still be cured after resection.

To enter the group:

(4) Patients with adenomyosis (uterine body > 50 days of gestation), chocolate cyst > 4 cm in diameter, untreated, or severe pain

Clear DIE lesions (diameter > 1 cm) can be palpated during gynecological triple examination;

(5) untreated bilateral hydrosalpinx or obstruction;

(6) Other conditions that are contraindicated or relatively contraindicated for surgery, such as diseases of other important organs. Other conditions that are not suitable for assisted reproductive treatment.

Participated in other clinical research studies (within the past three months);

(7) Those who are assessed to need IVF (e.g. those whose fallopian tubes are blocked or whose ovulation dysfunction cannot be treated with medication)

wait).

This study was conducted simultaneously in 17 hospitals in China, with a total of approximately 418 patients with uterine septate participating in the study.

A total of 50 patients from the Third Xiangya Hospital of Nanjing University participated in this study for 3 years. All the patients had two

There is a one in one chance that you will be randomly assigned to the surgery group or the control group, and so will you.

of.

If you choose not to participate in this study, it will not affect your current or future treatment at all.

Subsequent processing method.

#### 4. Research process and methods

The duration of this study is approximately: a screening period of 3 days, a treatment period of approximately 2 months for the surgical group (surgery + hysteroscopy resection)

The follow-up period was 12 months. If pregnancy occurred, the follow-up lasted until delivery or termination of pregnancy.

For additional follow-up, examinations and tests beyond clinical or surgical needs, no additional samples need to be collected.

Patients with uterine septate who were admitted to the outpatient clinic and planned to conceive naturally to achieve pregnancy were selected.

Patients who meet the diagnostic criteria will be interviewed by the researchers and if they agree to participate in the study, they will sign the relevant informed consent form.

Afterwards, the patient's medical history, menstrual history, pregnancy and childbearing history, and other information were collected, and the quality of life assessment form was filled out.

The patients were examined by three-dimensional ultrasound on the 16th to 24th day of menstruation to further confirm the diagnosis and to determine the length, range, sex, and

After evaluating the inclusion criteria, the patients will be randomly assigned to groups using a random number table.

The patients were assigned to the pre-defined groups in a 1:1 ratio (A: surgical group B: control group):

Surgery group: You will undergo uterine septum surgery, and possible endometrial hyperplasia may also be treated during the surgery.

The surgeon will follow the principle of protecting the endometrium by cutting the septum.

If the left and right side walls are found to be convex during surgery, they may be corrected and recorded at the same time.

If the uterine fundus ruptures, the thickness of the uterine fundus muscle layer will be at least 10 mm (combined with the judgment of preoperative three-dimensional color ultrasound and intraoperative monitoring ultrasound).

The surgeon may place a disposable intrauterine stent according to the intraoperative situation, such as treating the bilateral uterine wall or combining mild intrauterine cavity.

Adhesions and a small uterine cavity (the distance between the bilateral uterine corners is less than 35 mm).

16 to 24 days after the first menstruation after the operation, re-examine with three-dimensional ultrasound, and re-examine with hysteroscopy after the second menstruation is over.

Observe the uterine cavity and treat and record any residual septum.

You can actively try to get pregnant.

Control group: You will receive routine pre-pregnancy counseling and observation, but will not undergo hysteroscopic septum resection.

If you have other hysteroscopic indications, you will undergo hysteroscopy 3-7 days after your period ends, and you will also be treated during the procedure.

Possible lesions such as endometrial polyps, intrauterine adhesions (mild), and submucosal myomas will not be treated, and uterine septum will not be treated.

##### (2) Follow-up phase

The two groups of patients were followed up for more than 12 months from the time they decided to try to conceive to track their reproductive outcomes.

If the patient is lost to follow-up (cannot be contacted for 2 consecutive follow-ups, defined as lost to follow-up) or withdraws from the study,

The follow-up was ended.

##### Pregnancy follow-up

First pregnancy follow-up: After menopause, blood hCG was measured.

Second pregnancy follow-up: around 8 weeks of pregnancy, obtain relevant indicators of early pregnancy B-ultrasound examination.

The third pregnancy follow-up: around 28 weeks of pregnancy. Mainly to obtain information on fetal development, placental status, and complications during pregnancy

What happened.

Fourth pregnancy follow-up: 6 weeks after delivery, through telephone interview or on-site return visit combined with the patient's prenatal examination records

Record and copy obstetric medical records or log in to the postpartum information registration system, newborn medical records and collect patient information: ① Late pregnancy

Pregnancy complications (e.g., hypertensive disorders complicating pregnancy, gestational diabetes, placental abruption, placenta accreta)

placenta previa, intrauterine growth restriction, cervical insufficiency, premature rupture of membranes, premature birth, stillbirth, abnormal amniotic fluid

② Extracting delivery-related information (e.g., gestational age, mode of delivery, whether there is stillbirth, whether there is

abnormalities of the placenta, umbilical cord or amniotic fluid, whether the fetus is in distress, whether there are complications during delivery, etc.); ③ Newborn-related information

④ Postpartum complications (e.g.,

depression, puerperal infection, and/or late postpartum hemorrhage) and neonatal complications (eg, neonatal respiratory distress syndrome

symptoms, neonatal jaundice, neonatal infection, neonatal death and/or neonatal hospitalization); ask and record

Concomitant medications and adverse events.

Pregnancy follow-up should highlight obstetric intervention measures during pregnancy, such as pregnancy preservation treatment, and fill in the concomitant medication.

If pregnancy is terminated, the reasons for termination, gestational age, etc. shall be recorded.

## 5. Possible risks and inconveniences

Generally speaking, surgery has the risk of complications (adhesion of the wound after uterine septum surgery, postoperative bleeding, endometrial electrosurgical surgery, etc.).

thermal injury, hysteroscopy-related surgical risks, etc.), non-surgical treatment may increase the probability of adverse pregnancy.

There are risks with any treatment. Tell your doctor if you feel unwell.

The adverse reactions and risks you may experience during the study include but are not limited to the above.

Any drug that is studied may have other unforeseen or even serious adverse reactions.

The study doctor will also inform you of any adverse reactions in a timely manner. At the same time, the study doctor will closely monitor your condition and determine

If you have any adverse reactions, other drugs will be used to treat you if necessary to reduce the adverse reactions or

suitable.

## 6. Expected benefits

Your participation will help doctors obtain more reliable research data, which will be beneficial to the future understanding and treatment of such diseases.

Treatments for uterine septate may lead to medical advancements.

Participants in this study can receive free consultation and guidance from gynecologists and reproductive experts, which will help guide their understanding of the disease and the process of preparing for pregnancy.

guide.

There may be no significant benefit from participating in

## 7. Expenses related to participating in the study

Participating in this study can waive the registration fee and consultation fee for expert diagnosis and treatment. This study does not increase your expenses or medical insurance.

The expenses for examinations, tests and surgeries related to clinical and surgical needs shall be borne by the patient.

## 8. Compensation and treatment

If there are adverse events caused by the study-related process or additional follow-up visits for non-clinical reasons, each return visit will be

The subsidy will be remitted into your bank account through the hospital's financial system.

If a volunteer suffers from research-related damage, the researcher will do his best to prevent and treat the damage that may be caused by this research.

If research-related harm occurs during the study, it will be handled in accordance with my country's "Quality Management of Drug Clinical Trials"

The cost of treatment and corresponding financial compensation shall be provided in accordance with the provisions of the "Specifications".

## 9. Alternative treatment

If you do not want to take part in this study, you have the following options:

After fully understanding the risks of adverse pregnancy with uterine septate and the risks of hysteroscopic uterine septum resection, make an informed choice.

The choice of whether to surgically treat uterine septum. Uterine septum resection also includes abdominal or laparoscopic uterine septum resection.

The procedure requires incision of the entire uterine myometrium, and the risk of postoperative uterine rupture is relatively high.

Discuss these and other possible options with your doctor.

## 10. Privacy and Confidentiality

Your medical information will be kept confidential at all times.

Investigators, auditors, ethics committees and medical and health regulatory authorities may review your original medical records related to the research.

Medical information will be collected to ensure that the research is standardized and the data is authentic and reliable. However, all information will be kept confidential.

It may be published in a medical journal, but it won't reveal your identity.

## 11. Your rights

If any important new information about the study drug is available during the study and may affect your willingness to continue participating in the study

We will notify you when this happens and discuss with you whether we should continue with the study.

You may withdraw from this study at any time for any reason.

Participants who withdraw from the study or quit the study midway will not be discriminated against or retaliated against, and their medical treatment and rights will not be affected.

If the informed consent form is updated during the study, you may be required to sign the new version of the informed consent form again.

## 12. Contact Information

If you have any concerns or questions about the study, or if any emergency occurs, please contact your doctor immediately.

Please keep this information.

Doctor's Name (Print): \_\_\_\_\_

Contact phone number (landline): \_\_\_\_\_

Contact number (mobile): \_\_\_\_\_

If you have any questions about your rights, you can contact:

Ethics Committee of the Third Xiangya Hospital of Central South University

Contact number: 0731-88618938

Statement of consent

I have read the above and understand the nature and purpose of the study, as well as the possible adverse reactions of the drug.

All of my questions were answered satisfactorily.

reply.

I agree to attend regular follow-up visits and receive appropriate examinations related to this study.

The requirements should be understood and the researchers should be fully cooperative and provide the researchers with truthful and objective information before and during the study.

Health status and related conditions during and at each follow-up period.

I understand that participation in the research is voluntary, I confirm that I have had sufficient time to consider it, and I understand that I can

I understand that the doctor has the right to withdraw from the study based on my situation.

Terminate the study at any time.

I hereby consent to participate in this clinical research study and I will obtain a signed and dated informed consent

Book.

Subjects:

Name (print): \_\_\_\_\_ sign: \_\_\_\_\_

date: \_\_\_\_\_ Year \_\_\_\_\_ moon \_\_\_\_\_ day Contact: \_\_\_\_\_

Researcher: I confirm that the nature, purpose, requirements and possible risks of this study have been explained and informed to the subjects in detail.

The subject has informed and answered all questions related to the subject. The subject has voluntarily agreed to participate in this study. This informed consent form is in duplicate.

The researcher and the subject each keep a signed informed consent form. In accordance with national laws and regulations and this research plan, I will accurately

Conduct clinical research and take necessary measures to protect the rights and safety of the above subjects.

Name (print): \_\_\_\_\_ sign: \_\_\_\_\_

date: \_\_\_\_\_ Year \_\_\_\_\_ moon \_\_\_\_\_ day Contact details: \_\_\_\_\_