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Case Report

CASE REPORT: SECONDARY EMERGENCY CERCLAGE DELAYED TWIN DELIVERY CASES

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OBJECTIVE

To investigate the effect of emergency cervical cerclage on the treatment of cervical insufficiency in twin pregnancy. Methods: Report a case of a twin pregnancy in the hospital undergone with twice cervical cerclage, from the 23 weeks of gestation to 34 weeks of gestation. RESULTS: Emergency cerclage avoided abortion in this twin pregnancy, prolonging the 11th weeks of gestational age and the twins survived. Conclusion: Emergency cerclage is still a rescue method for patients with cervical dysfunction in a twin pregnancy, but pay attention to postoperative observation and care to achieve the best possible results.

Keywords: emergency cervical cerclage, twin pregnancy, delayed delivery

INTRODUCTION

Cervical incompetence is one of the common causes of abortion and premature delivery in the middle and late pregnancy [1]. In China, the proportion of recurrent miscarriage and premature delivery due to cervical insufficiency has increased year by year, and it is over-treating with the cervix. There is a direct relationship between cervical abortion and induced cervical injury [2]. Cervical insufficiency diagnosis is difficult and lacks clear and objective diagnostic criteria [3].

Emergency cervical cerclage is the only surgery to prolong gestational age for the treatment of changes in the cervix and/or when the fetal sac has been removed from the cervix.[4] In recent years, studies at China and abroad have shown that emergency cervical cerclage can successfully prolong gestational age and improve perinatal outcome [5-9] .

In 2014, ACOG guidelines did not recommend cervical cerclage for pregnant women with twin pregnancy. B-ultrasound examination showed that cervical cerclage may increase preterm birth when cervical length <25mm. risk. Gordon et al[10] used the life table analysis in 2006 to show that the incidence of preterm birth was significantly reduced in the treatment group before 35 weeks (P = 0.02). The clinical findings of Levin et al [11] showed that emergency cervical cerclage can effectively prolong gestational age. The clinical research perspective of Aguilera et al [12] shows that it is beneficial to perform emergency cervical cerclage in patients with multiple pregnancies. Domestic Ding et al [13], the domestic clinical treatment guidelines for twin pregnancy [14] have a history of late abortion and premature delivery or prophylactic cervical cerclage in prolific pregnant women may improve pregnancy outcomes.

REPORT

Patient, female, 29 years old, regular menstrual regularity, G3P0, 2 early abortions, transplanted a frozen blastocyst in the reproductive center of our hospital on 2017.06.06. After transplantation; it was given with Jiajiale, progesterone, and dydrogesterone. The blood HCG was positive 2 weeks after transplantation, and it was estimated that LMP: 2017.05.19, EDD.2018.02.26. Ultrasound shows gestational sac echoes, seeing two germs and two yolk sacs, all of which can be seen in the heart tube pulsation, single chronic double amniotic sac. 2017.10.13TVS measures the length of the cervix 3.5cm, 2017.10.20 by date 22+1 weeks of fetal color ultrasound examination when measuring the length of the cervix: 0.5cm, the patient has no abdominal pain, no vaginal bleeding, outpatient consultation recommended hospitalization, the patient did not follow the doctor's advice; 10.26 After 23 weeks of amenorrhea, the ultrasound examination was repeated: no obvious effective length was observed, and the vaginal peeping was normal: the vulva was normal, and the uterine sac was dilated, and the area was about 3*4 cm. Preoperative blood test routine, liver and kidney function, coagulation function and a complete set of vaginal secretions (conventional, culture, mycoplasma, Chlamydia, gonococcal) were not abnormal. On the day of admission, under the continuous epidural anesthesia, the McDonald method was used for emergency cervical cerclage. Litojun and atosiban were given for postoperative treatment. During hospital stay cervix was regularly observed. Two weeks after the operation, watery secretion, and the vaginal

peony was seen with the cervical cerclage line, the amniotic sac was again bulged out of the cervix, the diameter was about 3cm, the premature rupture of the membrane was excluded, and the patient and his family were informed. With her knowledge, she chose to perform cervical cerclage again. After the second operation was circumcised above the original loop, the original looped suture was removed. The operation was smooth. After the operation, ritodrine hydrochloride and atosiban were used to treat the cervix, and the patient had no obvious contractions. From the time of pregnancy to 34weeks+1 day of pregnancy, the patient complained of abdominal discomfort. Fetal heart monitoring showed contractions. Considering that the patient is now 34+ weeks pregnant, has irregular contractions, and has two histories of cervical cerclage, cervical tear or uterine rupture may occur at any time during the waiting and trial production. It is recommended to remove the cervical suture as early as possible and terminate the pregnancy. Patients and their families were informed; choose a cesarean section to terminate the pregnancy. Two live births, with no obvious deformity with normal Apgar score were received. Premature infants were taken to neonatal pediatric department. During the operation, the cervical cerclage line was removed, and the cervix was seen to be about 1 cm long from 12 o'clock to 1 o'clock, and about 2 cm long from 2 o'clock to 4 o'clock. Under neonatal pediatric treatment, both survive without any serious complications.

DISCUSSION

Emergency cervical cerclage is a cervical cerclage for emergency treatment of patients with cervical stenosis that has been significantly dilated at the time of presentation, and the amniotic sac has highlighted the external cervix or vagina. The purpose is to intervene or block the progress of labor. Emergency cervical cerclage is an effective method to prolong the gestational period of pregnancy and early pregnancy and improve the survival rate of the fetus caused by cervical insufficiency. It has a high success rate. However, it is still controversial whether to perform emergency cervical cerclage for twin or multiple pregnancies. Aguilera et al [12] also showed that emergency cervical cerclage is a beneficial treatment for patients with multiple pregnancies, which can prolong gestational age and improve neonatal survival rate. However, some scholars believe that the effect of emergency cervical cerclage on improving pregnancy outcome in patients with multiple pregnancies is not obvious. We can still use emergency cervical cerclage to improve pregnancy outcome in patients with twins pregnancy with cervical dilatation can still use emergency cervical cerclage to improve pregnancy outcome, but consider the multiple pregnancy uterine pressure, the operation is difficult, and the increase of twins uterine pressure after surgery is significantly faster than single pregnancy, the success rate of surgery is lower than single pregnancy.

In recent years, with the widespread development of assisted reproductive technology, patients with recurrent spontaneous abortion have increased the number of assisted reproductive technologies, and the incidence of twin pregnancy has increased significantly. The occurrence of cervical insufficiency has led to an increase in abortion, premature birth and perinatal mortality, which seriously affects the birth of perinatal infants, quality and mother's physical and mental health. Cervical insufficiency in twin pregnancy may be an excessive expansion of the uterus, intrauterine pressure is too high, the intrauterine volume is relatively

narrow, the cervix is subjected to intrauterine pressure and gravity and the growth of the amniotic sac increases the tension of the uterus and the membrane. The incidence of premature rupture is as high as 7% to 20%, causing miscarriage or premature delivery in the second trimester [19]. Let us pay more and more attention to cervical insufficiency in twin pregnancy.

In this case, patients with twin pregnancy cervical insufficiency benefited from vaginal cervical emergency cerclage. From 23 weeks to 34 weeks, a total of 11 weeks of gestational weeks were extended, and two surviving fetuses were obtained without serious complications. It can be seen that when the uterine cervix is opened and the amniotic sac is released but not rupture, the emergency cervical cerclage is the last rescue measure. It is worth a try.

Of course, not all patients with enlarged uterus are suitable for this surgical treatment. If the surgical indications are not correctly grasped, serious complications and adverse pregnancy outcomes may occur after surgery. Absolute contraindications for emergency cervical cerclage include infection, premature rupture of membranes, fetal malformation or stillbirth, active uterine bleeding; relative contraindications include uterine contractions, placenta previa, scar uterus, and intrauterine growth retardation. Infection and contractions are the main factors that affect the success of the operation. The success rate of emergency cervical cerclage is also related to the opening of the cervix. , Vaisbuch et al [15] reported that the gestational age of patients with a greater uterine cervix greater than 4 cm was longer than that of uterine opening ≥ 4 cm. However, Ciavattini et al [16] showed that emergency cervical cerclage is an effective treatment for patients with cervical insufficiency 14 to 24 weeks of gestation and no signs of infection and cervical dilatation <5 cm.

Patients with cervical insufficiency have no obvious contractions before surgery, so emergency cervical cerclage is effective for such patients. However, for patients with obvious uterine contractions, cervical cerclage should not be blindly performed, otherwise, the incidence of cervical laceration, cervical dislocation, premature rupture of membranes, and postpartum hemorrhage is extremely high [17].

Bleeding and cervical cerclage cutting cause cervical tissue damage [18]. In patients with emergency cervical cerclage, the complications of cervical cerclage are mainly the expansion of the cervix before infection. The operation is difficult, the uterus is also stimulated, and the contraction is easy. The cervix is mostly edematous after cerclage. The chance of a laceration is greater. Therefore, the appropriate use of tocolytics agents after surgery can reduce intrauterine pressure and reduce cervical damage. According to the patient's condition, the use time of the uterine contraction inhibitor is appropriately extended. Postoperative patients should be monitored for blood routine, C-reactive protein, and vaginal secretions and anti-infective treatment should be carried out in time to increase the success rate of surgery [19]. At the same time, observe whether the amniotic sac bulges again, and obtain the opinions of the patient and the family. If necessary, the patient can go under cervical cerclage several times. In this case, the patient is subjected to secondary cerclage.

At present, emergency cervical cerclage is controversial for the efficacy of twin pregnancy, mainly due to the lack of large sample data of clinical cases. With the popularization of clinical application of cervical cerclage, the development of assisted reproductive technology in China, the number of cases of twin pregnancy

is more beneficial, and it is beneficial for us to carry out research in this area. In the future, our research direction is to collect relevant clinical case data on the implementation of emergency cervical cerclage in a twin pregnancy and draw further conclusions.

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