POSTPARTUM HEMORRHAGE POST PLACENTA PREVIA CENTRALIS-CONSERVATIVE MANAGEMENT

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Abstract

Placenta previa is the placement of the placenta in the inferior segment of the uterine cavity. This defective implantation of the placenta is in most cases due to a defective vascularization of the decidua. Multiparity, great mother's age, previous abortions, previous caesarean section, multiple pregnancy, fetal abnormalities, leiomyoma uteri act., constitute some risk factors that favor the development of placenta previa. In a report to the degree of coverage of the internal orifice of the uterus from placental tissue, placenta previa divided into: placenta previa totalis, placenta previa partialis, placenta previa marginalia and low-lying placenta. The dominant clinical signs are vaginal bleeding, which varies from a spotting to a profuse bleeding that could seriously endanger the woman's life. In diagnosing of placenta previa helps symptoms and signs U/S examination is used for diagnosis with accuracy up to 95 percent. Placenta previa complications appear on 0.5% of all pregnancies. These complications can be; maternal and fetal. All these complications have an effect on the increase of the maternal and fetal or neonatal mortality rate. We report a case of 31-year-old woman presented in Obstetric and Gynecological clinic with signs and symptoms of placenta previa. One day later, the patient was born by caesarean section a healthy baby, but two hours later, the patient's condition was complicated from postpartum hemorrhage (PPH). The diagnosis was based on symptom and sign as continuous bleeding 'ex utero', clots in vagina, uterine atony, distended bladder, blood loss is approximately >1000 ml, there were signs of a clinically apparent shock. Using a conservative treatment such as the application of uterotonic drugs and uterine massage, we managed to be saved uterus.

Introduction

Placenta Previa is the placement of the placenta in the inferior segment of the uterine cavity. This defective implantation of the placenta is in most cases due to a defective vascularization of the decidua. Multiparity, great mother's age, previous abortions, previous caesarean section, multiple pregnancy, fetal abnormalities, leiomyoma uteri act., constitute some risk factors that favor the development of placenta previa [1,2]. In a report to the degree of coverage of the internal orifice of the uterus from placental tissue, placenta previa divided into: placenta previa totalis, placenta previa partialis, placenta previa marginalia and low-lying placenta. The dominant clinical signs are vaginal bleeding, which varies from a spotting to a profuse bleeding that could seriously endanger the woman's life. In diagnosing of placenta previa helps symptoms and signs U/S examination is used for diagnosis with accuracy up to 95 percent. Placenta previa complications appear on 0.5% of all pregnancies [3]. These complications can be; maternal and fetal. Maternal complications of placenta previa are: hemorrhaging, higher rates of blood transfusion, preterm delivery, placental abruption, disseminated intravascular coagulopathy, postpartum endometritis etc.[4] while complications of placenta previa in the fetuses and neonate are: fetal intrauterine growth retardation (IUGR), fetal anemia and rhesus isoimmunisation, abnormal fetal presentation, low birth weight, neonatal respiratory distress syndrome, sudden infant death syndrome

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KEY WORDS:placenta praevia, hemorrage, management

(SIDS), jaundice, longer hospital stay, etc. [5] All these complications have an effect on the increase of the maternal and fetal or neonatal mortality rate.[4,5]

Case report

A 31-year-old woman, with body mass index (BMI): 33.1 kg/m2, smoker (2pack per day for 5 years). She has two children and a spontaneous abortion in the tenth week. Two births have been with Cesarean section. Indications for primary cesarean delivery were; Breech presentation of incomplete, Oligohydramnios, Obesity, while for secondary Cesarean delivery were: late decelerations during labor, previous cesarean delivery, Obesity. Is used spinal anaesthesia. In none delivery had not complications. At week 38 of pregnancy, she was admitted in Obstetric and Gynecological Clinic with vaginal bleeding, profuse and that have started suddenly, blood was red and without coagulate. Pulse was 97 beats / minute, blood pressure 100/70 mmHg, respiratory rate; 19 breaths per minute, color of skin and the mucous membranes easy of fade, the patient was oriented in time and space. On bimanual examination, uterus was soft and had no sensitivity to pain. Fetal movements were normal. Uterine contractions were uncoordinated, which later became calm. During cardiotocographic monitoring, fetal heart rhythm was 155 beats per minute, intrauterine pressure during contraction was 20 mmHg, that appear each 10 minute and duration was approximately 30mm/seconds. In ultrasonography, placenta fully covered orificium internum uteri, so the diagnosis was placenta previa centralism. There was no fetal anomaly. Blood was taken to rate hemoglobin level that was 9,2 gr/dL, hematocrit:32.1%, bleeding time was 4 minutes, platelet number; 211.000 platelets per microliter of blood, prothrombin time (PT); 13 seconds, partial thromboplastin time (PTT); 32 seconds, International normalized ratio (INR);1.0, Fibrinogen; 3 g/l. The patient was being treated with supplements of iron and folic acid (60 mg of elemental iron + 0.4 mg folic acid, one supplement daily), that since 24th gestation weeks. The woman claims that since week 16 of pregnancy had spotting, while at week 28 vaginal bleeding was manifested, immediate, painless and profuse. At this time she was diagnosed with placenta previa. For this reason was hospitalized and is treated for two weeks. Initially, has taken tocolytics as indomethacin 100 mg suppositories two times daily, per two days, then antianemic drugs as Tothema ampoules of 10 ml, one time daily and bed rest. She was released from hospital with advice and therapy. During recent hospitalization, are provided 4 units of blood, ISO-group, ISO-rhesus, and fresh frozen plasma, because the possibility of hemorrhage was predicted during and after birth. Because the pain is calmed, is not performed immediately birth. It was programmed for Caesarean section in the morning, being present anesthesiologist and neonatologists. The patient was informed, consent was taken that in case of need can be applied the hysterectomy. Initially, abdominal wall was opened and then opened the uterus wall. During operative intervention is used in spinal anaesthesia, ASA Score is ASA II, hematocrit was 32.1%, placenta was found on the internal orifice of the uterus and completely shut in it. Amniotic cavity was opened on the upper side of the placenta and delivered to the child, with Apgar scores (1st: 7, 5th: 9) and body weight 3650 grams/ height 53 cm. Placenta was extracted of complete. She had bleeding from the uterine venous sinuses, which was controlled by ligation and application of oxytocin crystalloid 20 IU in perfusion with a speed 10-15 UI/min. Because of hemorrhage, we started with the blood transfusion with two units of blood, with blood group A Rh-D positive. Two hours later, the doctor found a postpartum hemorrhage (PPH), a serious emergency. The diagnosis was based on symptom and sign as continuous bleeding ex utero, clots in vagina, uterine atony, distended bladder, blood loss is approximately >1000 ml, there were signs of a clinically apparent shock. The pulse of the mother was 122 beats per minute, respiratory rate; 19 breaths per minute, blood pressure were 75/ 45 mmHg, and had a considerable amount of blood on the bed. Color of skin and the mucous membranes was more the pale. So, we had to do with a Major PPH. Continuing with blood transfusion, started with massage of the fundus of the uterus, have been applied 0.5mg ergometrine IV and 10UI oxytocin IV

in physiological solution 0.9%, with 30 drops/min. A speculum examination was done, where some of the blood coagulation has been removed, and was observed that it continues to arterial blood, of fresh. During U/S exam, in the uterine cavity had blood. Because the bleeding continues (more than 2 hours and blood loss >1000 ml), the decision was taken for relaparotomy. During laparotomy the uterine incision was found intact. Uterus was slightly contracted. Prostaglandins were injected in the uterine muscle (are injected 250 micrograms prostaglandin F2 Alpha into the uterine wall, to arrive a quick tetanic contraction of the uterine muscle), and direct pressure was exerted, over uterus with both hands for 25 minutes. Woman condition was stabilized (stopped bleeding, the normal contraction of the uterine muscle, pulse was 83 beats per minute, respiratory rate;16 breaths per minute, blood pressure was stabilized 110/75mmHg, hematocrit was 34.2 %) and abdomen was closed. After operation is monitored for abnormal bleeding from the genital tract for thirty minutes, there was no bleeding. The woman was monitored in intensive unit care for 24 hours. Her condition was stable. She was very happy which had been preserved uterus.

Discussions

Placenta previa is an obstetric complication that occurs in 1% to 3.7%, in women with previous caesarean section, and increases with the increase of numbers of births by caesarean section [6]. Placenta previa affects about 1 in 200 pregnant women in the third trimester of pregnancy, but in the 16th week of pregnancy, it can go up to 15 percent [7].

A meta-analysis showed that the rate of placenta previa increases with a rate of 1% after 1 cesarean delivery, 2.8% after 3 cesarean deliveries, and as high as 3.7% after 5 cesarean deliveries [6].

A 7-year study has concluded that a history of previous cesarean section was associated with a significant increase in maternal morbidity, including massive hemorrhage, placenta accreta, and hysterectomy [8].

Our case was a patient who had had two births previous caesarean sections, but in the third pregnancy was affected by placenta previa. In a prospective study, from 41206 consecutive deliveries 1851 had had a previous caesarean section and 222 had placenta praevia [9]. Also, a prospective study shows that the risk of placenta previa was 0.25% with an unscarred uterus and 1.22% in patients with one or more previous cesarean section [10].

Birth by caesarean section is indicated for all patients who have placenta previa diagnosed on ultrasound [11, 12]. In these births, the doctor must be aware of the possibility of rapid blood loss during the birth process. The moment of shared placenta, bleeding is controlled by uterine contractions myometrial fibers around spiral arterioles [13].

Because of the lower uterine segment is often contracted slightly, severe bleeding may occur in the place of implantation of the placenta. Approximately 1.5% - 4.1%, uterine contractions are totally absent, the condition is called atony of the uterus [14].

1 in 20 births are complicated with uterine atony [15], one of the reasons is the placenta previa. Physiological blood losses during childbirth are dependent on the type of delivery. The average blood loss in a birth by caesarean section is 1000 ml [16]. For control of postpartum hemorrhage, uterotonics and uterine massage represent the first line of treatment in most of guidelines for the treatment of PPH [17, 18].

The importance in our case report stands to it that there should be no hurry with radical surgical treatment for postpartum hemorrhage, unproven with conservative treatment as uterine massage (direct pressure with both hands for 25 minutes) and uterotonics.

Conclusions

It is known that cesarean deliveries predispose to placenta previa, placenta accreta and possibility of postpartum complications, in the form of antepartum, intrapartum and postpartum hemorrhage. It is very important that the birth to be done quickly. Maternal mortality is related to slow and uncertain decision-making [4, 5]. Using a conservative treatment such as the application of

uterotonic drugs and uterine massage, too many women's can be saved uterus. Therefore often suffice only these two actions to save the uterus.

Conflict of interests

The authors declare that they have no competing interests.

REFERENCES

1. Mónica G, Lilja C. Placenta previa, maternal smoking and recurrence risk. Acta Obstetricia et Gynecologica Scandinavica. 1995 May 1;74(5):341-5.
2. Taylor VM, Kramer MD, Vaughan TL, Peacock S. Placenta Previa and Prior Cesarean Delivery: How Strong is the Association?. Obstetrics & Gynecology. 1994 Jul 1;84(1):55-7.
3. Iyasu S, Saftlas AK, Rowley DL, Koonin LM, Lawson HW, Atrash HK. The epidemiology of placenta previa in the United States, 1979 through 1987. American journal of obstetrics and gynecology. 1993 May 31;168(5):1424-9.
4. Frederiksen MC, Glassenberg R, Stika CS. Placenta previa: a 22-year analysis. American journal of obstetrics and gynecology. 1999 Jun 30;180(6):1432-7.
5. Zlatnik MG, Cheng YW, Norton ME, Thiet MP, Caughey AB. Placenta previa and the risk of preterm delivery. The Journal of Maternal-Fetal & Neonatal Medicine. 2007 Jan 1;20(10):719-23.
6. Marshall NE, Fu R, Guise JM. Impact of multiple cesarean deliveries on maternal morbidity: a systematic review. American journal of obstetrics and gynecology. 2011 Sep 30;205(3):262-e1.
7. Neilson JP. Interventions for suspected placenta praevia. The Cochrane Library. 2003.
8. McShane PM, Heyl PS, Epstein MF. Maternal and perinatal morbidity resulting from placenta previa. Obstetrics & Gynecology. 1985 Feb 1;65(2):176-82.
9. Chattopadhyay SK, Kharif H, Sherbeeni MM. Placenta praevia and accreta after previous caesarean section. European Journal of Obstetrics & Gynecology and Reproductive Biology. 1993 Dec 30;52(3):151-6.
10. Nielsen TF, Hagberg H, Ljungblad U. Placenta previa and antepartum hemorrhage after previous cesarean section. Gynecologic and obstetric investigation. 1989 Jul 1;27(2):88-90.
11. Leerenrveld RA, Gilbert EC, Arnold MJ, Wladmiroff JW. Accuracy and safety of transvaginal sonographic placental localization. Obstetrics & Gynecology. 1990 Nov 1;76(5):759-62.
12. Sherman SJ, Carlson DE, Platt LD, Medearis AL. Transvaginal ultrasound: does it help in the diagnosis of placenta previa?. Ultrasound in Obstetrics & Gynecology. 1992 Jul 1;2(4):256-60.
13.Silver RM. Abnormal placentation: placenta previa, vasa previa, and placenta accreta. Obstetrics & Gynecology. 2015 Sep 1;126(3):654-68.
14. Lutomski JE, Byrne BM, Devane D, Greene RA. Increasing trends in atonic postpartum haemorrhage in Ireland: an 11 year population based cohort study. BJOG: An International Journal of Obstetrics & Gynaecology. 2012 Feb 1;119(3):306-14.
15. Dildy Iii GA. Postpartum hemorrhage: new management options. Clinical obstetrics and gynecology. 2002 Jun 1;45(2):330-44.
16. Pritchard JA, Baldwin RM, Dickey JC, Wiggins KM. Blood volume changes in pregnancy and the puerperium: 2. Red blood cell loss and changes in apparent blood volume during and following vaginal delivery cesarean section and cesarean section plus total hysterectomy. American Journal of Obstetrics and Gynecology. 1962 Nov 15;84(10):1271-82.
17. Stainsby D, MacLennan S, Hamilton PJ. Management of massive blood loss: a template guideline. British journal of anaesthesia. 2000 Sep 1;85(3):487-91.
18. Bonnar J. Massive obstetric haemorrhage. Best Practice & Research Clinical Obstetrics & Gynaecology. 2000 Feb 29;14(1):1-8.