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Post-Cesarean Preeclampsia's Case CVA: A Case Report

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Abstract

In this case report we present a 32-year-old gravid 5, para 3, live 3, Ab1 with 4 cesarean repeat who presented at 31 weeks and 3 days of gestation with severe hypertension and vaginal bleeding. She was diagnosed with severe preeclampsia and underwent an emergency cesarean section. Due to bleeding from the drain and stable tachycardia, an exploratory laparotomy was performed, and due to uncontrollable bleeding during surgery underwent on TAH. Unfortunately, the day after the procedure, she developed sudden onset of right limb weakness, Broca's aphasia, and hemiparesis on the right side and was subsequently diagnosed with a CVA.

She was started on antiplatelet therapy and anticoagulation, and her blood pressure was closely monitored and controlled. She made a gradual recovery and was discharged home with residual weakness and speech difficulties. This case report highlights the need for early recognition and management of preeclampsia to prevent adverse maternal and fetal outcomes, as well as the potential complications that can arise from cesarean sections. It also emphasizes the importance of multidisciplinary management of pregnant women with preeclampsia, involving obstetricians, neurologists, and other specialists as needed.

Keywords: Preeclampsia; Antiplatelet; Tachycardia; Anticoagulation; Hyperthermia

INTRODUCTION

Cesarean section, a long-standing method of delivery, is not without risks or complications [1]. Postoperative complications according to their importance should always be considered in mothers who undergo cesarean section to prevent complications such as hyperthermia, wall infection, sepsis, phlebitis, abscess, scar disunion, occlusive digestive syndrome, composite variables, need for a second surgery, transfer to intensive care, and even death [2,3].

Preeclampsia and eclampsia are common issues that have long-term effects on mothers [2]. Qtroke risk remains for decades in women with preeclampsia-eclampsia, and the early postpartum period has a higher risk of cerebral vascular thrombosis [5]. On the other hand, general risk factors such as infection, smoking, primary thrombophilia, cesarean delivery, and preeclampsia-eclampsia increase the risk of CTA [4].

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Stroke is very rare during pregnancy or the postpartum period; however, it is vital and can lead to irreparable complications [7]. In this report, we describe a case of preeclampsia in the postpartum period of cesarean section with CVA to highlight the possibility of post-cesarean stroke.

CASE RESENTATION

At 39 years old woman gravid 5 para 3 live children of 3 and 1 abortion cesarean repeated 4 times, with gestational age of 31 weeks+3 days (estimated by NST) and history of preterm labor (in 32 weeks in two of last pregnancies cause of high blood pressure both in 6 and 8 years ago) and appendectomy and did not check blood pressure or blood sugar between pregnancies, refers by vaginal bleeding less than menstrual volume and high blood pressure of 160/100 mm of mercury to a local clinic and due to rise of blood pressure 4 gram labetalol stat and 20 milligram magnesium sulfate bolus IV injected then sent to nearest hospital (Aliabad) in 2:15 hours later, 12 mg betamethasone bolus iv had been received there and laboratory tests for preeclampsia rolling out plus NST were performed. The results showed proteinuria 2+, cratenin 0.6, BUN 19, AST 15, ALT 11, ALKP 119, bilirubin total 0.46, direct 0.07, and platelets 241000.

Three hours later, the patient was referred to the more equipped center of the Sayad Shirazi Hospital in Gorgan for better monitoring. At the time of admission, there were no signs of vaginal bleeding or leakage, and the patient did not experience epigastric pain, headache, dizziness, or blurred vision. Her vital signs at the time of admission were as follows.

TV and SPG did not have a history of bleeding. The fetal heart rate was 145. The patient was diagnosed with severe preeclampsia and underwent a cesarean section.

The fascia and peritoneum were opened, adhesion of the omentum and dehiscence were observed, and a transverse incision of the lower canine was made. The extension of the 2 cm cut in the middle line of the lower canine was cauterized. The amniotic fluid was bloody, with a normal volume. The baby boy was born with a cephalic presentation and an initial Apgar score of 4, and 5 min later, 8. The complete placenta and membranes were removed, with 80% detachment, and there were many clots and blood inside the uterus. A bg was sent, which reported a pH of 7.38, PCO_2 of 25.30, HCO_3 of 14.70, and BE of -9.7. The peritoneal fascia and skin were repaired. In the daily tests taken from the patient, there was a decrease in Hb two days after the operation when an abdominal ultrasound was performed, in which the radiologist described the uterus with dimensions of 115 × 63 mm and the thickness of the endometrium was 4 mm. He also mentioned that an image of a heterogeneous area with dimensions of 70 × 40 × 80 and an approximate volume of 112 ccs was seen between the bladder and the front of the lower uterine segment in the cesarean section, which was the cause of the clot in that area. Free fluid around the liver (in Morrison's space) with a thickness of approximately 6 mm was also free fluid was seen in the abdominal space. Mild pleural effusion on the right side has also been previously reported. Owing to the stable tachycardia of the patient and continued bleeding from the drain, an exploratory laparotomy was performed on the same day. After GA and P and D, the skin was opened from the midline cesarean incision site, there was 400 cc of blood in the abdomen, 400 cc of clots accumulated on our lower canine, which were removed, after the clot was removed, a lot of oozing was seen from our lower canine with sutures. The bleeding could not be controlled because of continued bleeding, and TAH was performed. The patient was hospitalized and monitored, cardiac consultation was performed for echocardiography due to tachycardia, EF: 55-60% and the rest of the normal functions were reported. The ECGs obtained from the patient during hospitalization were normal. The day after the operation, he suffered from weakness of the right limbs, Broca's aphasia, and hemiparesis on the right side. Brain CT without contrast and color Doppler ultrasound of the lower limbs were requested due to edema. She was started on antiplatelet therapy and anticoagulation (**T**able 1), and her blood pressure was closely monitored and controlled. In the sonography report, the IMT was 0.5 mm in the CCA and 0.4 mm in the left CCA, the speed and pattern were normal, and no stenosis was seen. On BRAIN CT, there was evidence in favor of CVA.

Table 1: Medicines.

The day of description	Drug	Dose	Intake method	Times
TAH day	Tab metoral	25 mg	Po	BD
TAH day	Tab valsamix	I	Po	BD
TAH day	Drip TNG	5-10 mcg/min	IV	if SBP>160
TAH day	Amp metronidazole	500 mg	IV	QID
First day after TAH	Tab aspirin	80 mg	Po	Daily
First day after TAH	Tab osvix	75 mg	Po	Daily

First day after TAH	Tab atorvastatin	40 mg	Po	Daily
First day after TAH (one day before CVA presentations)	Amp heparin	5000 unit	s.c	Daily
Five days after TAH	Amp meropenem	1 gram	IV	TDS
Five days after TAH	Amp cilicolin	25 mg	IV	BD
Eight days after TAH	Tab plasil	I	Po	BD
Eight days after TAH	Tab pantazol	40 mg	Po	Daily
Eight days after TAH	Tab cotrimoxazol	II	Po	BD

The patient remains under observation, medical treatment, and physical therapy, and is discharged 9 days later with stable vital signs and a good general condition and was discharged home with residual weakness and speech difficulties.

DISCUSSION

This case report is presented with the aim of increasing attention to strokes after cesarean section.

Preeclampsia has many complications for the mother and fetus; on the other hand, cesarean birth itself is considered a complicated reproductive method [8]. Although pregnant women are at increased risk for thromboembolic diseases due to physiologic changes as well as medical conditions such as hypertension, diabetes mellitus, heart disease, migraines, antiphospholipid syndrome, sickle cell anemia and thrombophilia, preeclampsia and eclampsia to date, few studies have reported CVA complications after cesarean sections [9,10]. Thrombotic complications have been reported in few studies so far after cesarean section, especially in the early days after it, although open CVA is rarer [11]. Postpartum stroke risk is reposted that increased with 58.4% in 10 days after, the exact etiology is unknown but a rise in blood pressure on three to five days due to fluid shift and impaired cerebral autoregulation can increase the risk of stroke [12].

In this study, we introduced a preeclamptic patient who underwent emergency cesarean section due to preeclampsia and then underwent exploratory laparoscopy two days later due to decreased serum hemoglobin and tachycardia. During laparoscopy, hysterectomy is performed because of bleeding in the lower segment and lack of control with sutures. The patient remains under observation and is hospitalized, and within two days of TAH, he develops neurological symptoms related to CVA.

CONCLUSION

Postpartum ischemic stroke is rare but in postpartum period has a higher risk especially after cesarean section; moreover, preeclampsia has a higher risk for thromboembolic complications. Whether CVA remains a complication for patients with preeclampsia or cesarean section may be considered a risk factor; however, according to the available evidence, thrombotic complications should always be considered in this case. Therefore, these patients should also be considered.

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