

Placental Bleeding and Newborn's Renal Failure

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Abstract

Placental hemorrhages are the one that are responsible for neonatal anemia. Placental incision during caesarean section remains one of the main cause for anemia cited little newborn. We reported a case of placental incision causing significant complications in a third iterative caesarean section. Neonatal consequences have been severe acute anemia, hemolytic jaundice and early acute renal failure signs of severe asphyxia with multiple organ failure. Risk of placental incision led to increasing the number of caesarean because of vicious insertions placenta. We recommended the precise location of the placenta in late pregnancy and availability of blood products in the delivery room.

Keywords: Placental incision; Neonatal anemia; perinatal asphyxia; Jaundice; Acute renal failure

Introduction

The best known and most feared causes of placental hemorrhage are placenta previa and placental hematoma retro. The clinical impact on the newborn is based on the importance of blood loss [1]. The Caesarean sections to reduce morbidity and maternal and fetal mortality are not possible without complications [2,3]. The difficulties inherent in the surgery and it also lead to increased number of caesarean section [4]. The main complications are maternal anesthetic or medical order [5]. Surgical complications occur in most cases during iterative caesarean section [6]. Neonatal morbidity of caesarean sections is often assessed in relation to Apgar score [2,6].

Birth injuries in the newborn are recognized; they are defined as lesions resulting adverse conditions that may have occurred during work as the expulsion [7]. The fetal complications during caesarean section are notified, less predictable and often minor not life-threatening [5]. We report a case of neonatal acute anemia placental incision with the waning of a third iterative cesarean.

Clinical observation

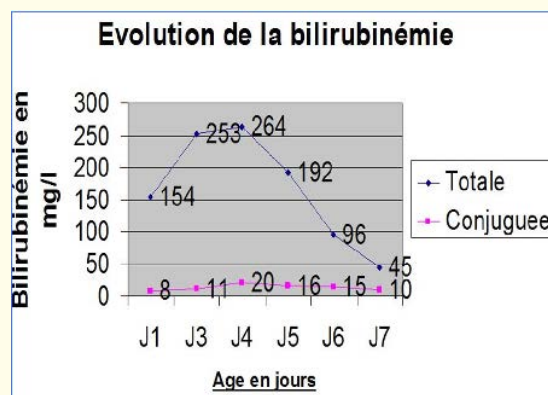
The child was born after a well attended 7 antenatal pregnancy, a normal prenatal ultrasound obstetric balance sheet and 4 were performed. The mother was fourth and third bullet gesture. The blood count performed during the preoperative assessment showed hemoglobin 11.7 g/dL and a Hematocrit 36.2%. In many intraoperative parietal- uterine adhesions and parietal-bladder, it led to hazardous bladder detachment. Hysterotomy was therefore segment to vertical-corporeal falling on a previous placenta which had to be taken to proceed with the extraction of the newborn.

The child was born with Apgar next to zero a minute, a three and five minutes, three in ten minutes. Birth weight was 3000 grams, the size of 50 cm and head circumference was found to be 34 centimeters. The CPR combining mask ventilation and external cardiac massage has enabled effective spontaneous breathing after ten minutes. An umbilical venous cannulation was performed that gave six minutes

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of life allowing saline fluid resuscitation and blood transfusion with whole blood (75 ml) at 45 minutes of life. Hemoglobin levels before transfusion was 3.3 g/l with a Hematocrit 10.7%. The newborn was hospitalized in Neonatology Department at a time of life for a severe respiratory distress (Silverman index 6). Saturation was 90%, respiratory rate was found to be 85 breaths per minute and heart rate was 159 beats per minute admission.

The clinical course was marked from H10 life by the appearance of a frank jaundice with haematic urine. Changes in serum bilirubin were traced in Figure 3. A conventional phototherapy that continues round the clock was made up J4. Infusions of human albumin at 1 g/kg were performed concomitantly for 3 days. The direct Coombs test and research of irregular agglutinins were negative. Alkaline phosphatase was high (90 IU / l) and the Transaminase (GPT 22UI/l, GOT: 67 IU/l). The hemoglobin level was equal to 9.8 to 8.9 to H14 and H16 and a second transfusion was required for J1. The first urine was issued to H12. The Haem from H16 was observed and urine became blackish on D1 and D2 that followed an oligoanuria. Mean arterial blood pressure was between 47 and 52 mm Hg to J5.



The daily urine output could not be quantified but weight monitoring was used to assess the quality of diuresis. On J3, a weight gain was 200g with edema of the lower limbs and external genitalia. On D4, weight gain was 900g with gross edema.

Furosemide at progressively increasing doses (0.5, 2,4 and 6 mg/kg/day on day 6) was administered at the persistence of oliguria, increased edema and anuria. Diuresis was restored with a weight loss of 700g on D6. The relay was taken with spironolactone at 10 and 5 mg/kg per os. Biologically, normal renal function at first was slightly disrupted with urea 0.42 g/l and 0,88g/l and creatinine to 9 mg/l and 10 mg/l at J3 and J5.

Neurologically, the child was reactive with axial hypotonia and primitive reflexes dulled until J5 life. The suction was strong from J5.

In the absence of gastric residues and food, gastrointestinal bleeding could be started at J2 bottle with artificial milk without complications. When latching was performed on J6, the child was released after eight days of hospitalization.

Discussion

Cesarean section is a saving gesture in many situations for both mother and child. However it also remains associated with significant morbidity and it led to risk development to the mother and fetus during cesarean section. These risks are significantly higher than during a vaginal delivery because of working conditions [2].

During third iterative the symptoms observed were numerous parietal- uterine adhesions and parietal- bladder made of any hazardous cling bladder. Hysterotomy was segmento vertical - corporeal falling on a previous placenta that has been taken to proceed with the extraction of the newborn. According to Makoha, [4] the operating difficulties increase with the number of caesarean especially after the third because of possible adhesions. The socio-cultural and religious milieu in Saudi limit the actual accessibility to contraception

and tubal sterilization is not accepted and the large family is favored [4]. Caesarean sections accounted for uterine scar and the second indication for caesarean section after bone dystocia was found in the study of Diallo [2]. In Black Africans living the same socio-cultural realities as that of Saudi, complications of iterative caesarean sections will be more frequent.

The consequences of this placental incision were: immediate acute anemia, and short-term hemolytic jaundice and acute renal failure. Anemia by placental incision during the cesarean is cited among the causes of neonatal anemia [8].

Cell pain resulting from anoxia caused a multi organ failure characterized by hepatic and renal complications that are markers of the intensity and duration of anoxia [9,10]. The hepato cellular renal insufficiency and post anoxic resulting from perinatal anoxia has been described by several authors [9]. Organs such as the lung, the myocardium, the digestive tract and the endothelium were not reached in our case.

Conventional phototherapy with fluorescent tubes was made continuously with 24/24 shift position. Every 8 hours associated with human albumin has allowed a favorable evolution. The benefits of intensive therapy are known but conventional phototherapy in our countries remains an alternative that makes such evidence.

According to Dugas [10] moderate blood loss of 30-45% of the circulating volume is expressed in the kidney by oliguria and there was also a major loss greater than 45% of circulating volume by anuria. The hemoglobin level at birth was 3.3 g/dL with a Hematocrit 10.7%. Kidney failure was the consequence of renal hypoperfusion because the blood loss was greater [11]. Blood levels of urea and creatinine were normal despite the symptomatology; indeed at birth, creatinine of the child is the same as that of the mother regardless of renal function (walking). Functional acute renal failure or prerenal occurring in situations of hypoperfusion and/or renal hypoxia is rapidly reversible after vascular filling and restoration of proper renal perfusion. The oliguria and anuria observed were likely due to tubular necrosis due to prolonged renal hypoperfusion [10,11]. It was necessary after correction of blood volume using high doses of furosemide (2-4 mg/l) that was found to be effective and led to a normal diuresis that we evaluated on the melting of edema [11].

Neonatal prognosis depends on the speed of therapeutic care that is based on several factors, including the speed of fetal extraction and availability of medicines and blood products. In our context blood products are not immediately available; transfusions were delayed while prolonging the duration of asphyxiation that led to upper bound risk sequelae and death.

Conclusion

The incision of the placenta has the same consequences as that of neonatal placenta that exhibit previa bleeding or retro -placental hematoma. Although rare, it is a surgical complication of cesarean that puts life threatening newborn. Despite the desire of many caesareans maternity does not decrease among black women. The operating difficulties increasing with the number of caesarean special attention should be paid to the iterative cesarean because of the risk of vicious insertions placenta. The availability of blood products in the operating room is a must for both the mother and the unborn child.

	J1	J3	J4	J5	J6	J7	J8 EXEAT
Na		139 mmol/l	138				
K		5,22 mmol/l	3,83				
Cl		102 mmol/l	101				
Ca	2,13 mmol/l	1,77	2,44	2,20			
Urea		0,42 g/l		0,88			
Créat		9 mg/l		10			
Bili T	154	253	264	192	96	45	
Bili C	8	11	20	16	15	10	

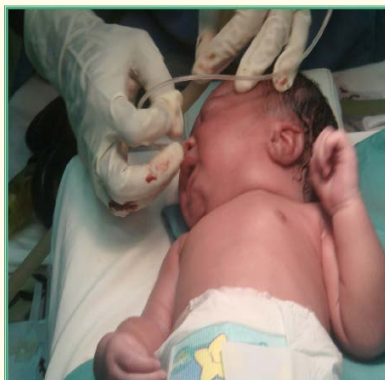
Protidémie	50	45	50	53			
GPT				22			
GOT				67			
Phosphatases alcalines				90			

Urea and creatinine measured at various normal conditions of waning 2014 0.40 g/l (6,64 mmol/l) and 6 mg/l (54 micromole/l)

Average Bilateral sensor neural hearing loss diagnosed at 7 years

WFP OD: 56dB OG: 57dB

Prescribed hearing aids. Paired sensorineural hearing loss history in 2 other children of siblings No neurological sequelae and orthopedic; metatarsus varus foot left and right talus valgus naturally corrected.



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