

Unplanned Vaginal Delivery After Repeated Caesarean Birth in Nigerian Women

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Abstract

Traditionally, vaginal birth after more than one caesarean section is not allowed due to the fear of uterine scar dehiscence/rupture and its attendant maternal and fetal risks. Against the background of worldwide high caesarean section rates, increasing obstetric subpopulation with previous scar and vaginal delivery being relatively safer than caesarean section, there is now a growing body of literature highlighting successful vaginal births in women with more than one previous caesarean section with satisfactory fetomaternal outcome in carefully selected patients. Presently most cases are unplanned. We hereby present three cases of unplanned vaginal delivery after more than one caesarean section

Key Words: Unplanned, Vaginal Birth, Caesarean Section

Introduction

Caesarean section is a common obstetric operation¹. In the last 30 years the rate has risen from 4.5% to 24.7%². Factors responsible for the increase include the relative safety of the procedure, concern about litigation and approximately one-third of caesarean section being performed because of previous caesarean section^{1,3,4}. In comparison to caesarean section, vaginal delivery is associated with less maternal and perinatal risks, requires limited anaesthesia, has less risk for postpartum morbidity with a shorter hospital stay, cheaper and ensures earlier and smoother bonding between mother and baby⁵.

For the rate of caesarean deliveries to be reduced it has now been recognized that vaginal birth after one caesarean section in subsequent pregnancies is possible in many women¹. Also studies are now suggesting safe vaginal delivery in carefully selected women who have had more than one caesarean section^{5,6}.

Case Reports

Case One

Mrs. A.T. was a booked 38 years old gravida 4, Para 3⁺⁰, 5 alive. She booked in this pregnancy at a gestational age of 22 weeks and her general condition was satisfactory. Ultrasound scan done at booking revealed dichorionic twin gestation, with both fetuses alive and active. The placenta was extensive and located in the posterior aspect of the uterine corpus. Her antenatal period was uneventful. She was counselled and scheduled for a fourth caesarean section at term.

Her first delivery in 1989 at term was by elective caesarean section due to twin gestation with first twin in transverse lie. Both were female, birth weights were 2.4kg and 2.6kg respectively. Her second delivery

in 1992 at term was by elective repeated caesarean section on account of twin gestation with a previous scar; both babies were female, with birth weights of 2.5kg and 2.6kg respectively. Her third delivery in 1997 at term was by a third elective caesarean section. The baby was a male weighing 3.1kg. In the three episodes, she was discharged home from the hospital on the seventh postoperative day with mother and babies doing well.

However, she presented with spontaneous preterm contractions and liquor drainage at 34 weeks gestation on 13th October 2002. On examination, her general condition was satisfactory. Blood pressure was 110/70mmHg. Her pulse and respiratory rates were normal. Abdominal examination revealed no tenderness, regular strong uterine contractions and symphysiofundal height was compatible with a gestation age of 40 weeks. The first twin was presenting cephalic; multiple fetal heart sounds were heard with rates of 142 and 148 beats per minute respectively. The descent of the head was 2/5th palpable per abdomen. Cervix was, soft, fully effaced, os 8 cm dilated and head at station 0+1. No cord prolapse or bleeding per vaginam was noticed. While preparation was being made for caesarean section, the patient felt the urge to bear down. Vaginal examination revealed a fully dilated cervix. She was transferred to the second stage couch and twin delivery conducted. Both are alive and well, with birth weight 1.9kg and 2.1kg and Apgar scores 8 and 10, and 7 and 9 at 1 and 5 minutes respectively. Placenta was delivered by controlled cord traction and complete with no primary postpartum haemorrhage. She was counselled on contraception

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before discharge forty-eight hours later.

Case Two

Mrs. A.F. was a booked 28 years old, gravida 4, Para 3⁺⁰, 1 alive. She booked at 18 weeks gestation. Antenatal scan at 28 weeks gestation, revealed a single active fetus in cephalic presentation, placenta was anterior-fundal. Index pregnancy had been uneventful. She was planned for a second elective repeat caesarean section at term.

Her first delivery in 2000 at term was by emergency caesarean section on account of antepartum eclampsia. She delivered a fresh stillborn baby. Her second delivery was in June 2001 at term. The baby presented with footling breech. A vaginal delivery was attempted in a mission home. She delivered another fresh stillbirth. Her third delivery in 2002 was by an elective repeat caesarean section on account of major placenta praevia at term. She was delivered of a live male infant. Birth weight was 2.6kg. After the two operations she was discharged home on the eight postoperative day. She presented at 36 weeks gestation with labour pains and liquor drainage of 8 hours duration on 08/09/2004. Examination revealed a blood pressure of 120/80mmhg, pulse rate was 90/min. abdominal examination showed no tenderness, contractions were felt, fetus was presenting cephalic with a fetal heart rate of 144 beats per minute and 3/5th palpable per abdomen. Vaginal examination showed a fully effaced and dilated cervix at station 0+1. She was admitted into the labour ward and delivery was conducted. She had a live male infant. Birth weight was 3.2kg with Apgar scores of 7 and 9 at 1 and 5 minutes respectively. Placenta was delivered by controlled cord traction and complete. There was no primary postpartum haemorrhage. Mother and baby were discharged after 48 hours

Case Three

Mrs. L.I. was an unbooked 31 year-old gravida 3 Para 2⁺⁰, 2 alive. Her first delivery was in 1994 at term via an emergency caesarean section on account of cord prolapse. She had a perinatal death of a male infant. Her second delivery in 1996 was via an elective repeat caesarean section for a breech presentation at term. It was a male child weighing 3.7kg. Both operations were uncomplicated.

She presented in the emergency ward on 10/06/2000 after a spontaneous vaginal birth. Birth weight was 3.4kg. Mother and baby were stable and later discharged after 48 hours.

Discussion

Vaginal birth after one caesarean section is now an accepted obstetric practice¹. Craigin in 1916 had implied that subsequent pregnancies after a caesarean section were to be delivered by an elective repeat

caesarean section⁴. This resulted from the fear of uterine scar rupture with its associated maternal and fetal morbidity and mortality. This fear was justified then, when the original procedure was a classical caesarean section but it persisted even with its replacement by the lower uterine segment operation⁵.

With time, it became apparent that a safe vaginal delivery could occur successfully after a previous lower uterine segment caesarean section^{4,6,7}. This observation was made initially by chance when women with a previous lower uterine segment caesarean section scar planned for an elective repeat caesarean section went into labour and delivered vaginally before the scheduled operation, heralding the era of "trial of scar" or vaginal birth after caesarean section^{8,9}.

In 1988 the American College of Obstetricians and Gynecologists (ACOG) suggested some guidelines for vaginal birth following caesarean section. Some of the guidelines include the following; repeat caesarean birth should be by specific indication, women with two or more caesarean deliveries should not be discouraged from attempting vaginal birth after caesarean section. A physician capable of evaluating labour and performing a caesarean delivery should be 'readily available', and that professional and institutional resources should be available to respond to "intrapartum obstetric emergencies" such as performing a caesarean delivery within 30 minutes from the time decision is made until the "surgical procedure is begun"¹⁰. The ACOG has recently modified its recommendations. However, the major change has been that the obstetrician be "immediately available" to provide emergency care¹⁴.

Existing medical literature indicates that 60-80% of patients can achieve a safe vaginal delivery after a prior single lower uterine segment caesarean delivery in carefully selected cases^{1,12}. The factors identified as favouring such an outcome include a history of a previous vaginal birth before or after the caesarean section. Others are when the previous caesarean section was for a non-recurrent cause, when the previous incision was a lower uterine segment one, absence of associated morbidity at the previous operation, satisfactory scar integrity and no other obstetric contraindication to vaginal delivery in index pregnancy¹. This has led to a plateauing of and, later, reduction in the caesarean section rates in many countries^{4,7}.

In the late 20th century, the prevalence of obstetric subset of women with a previous scar remained high, as 10-25% of all deliveries was by caesarean section, with their increased risk of repeat caesarean section⁴. Then obstetric evidence began to accumulate on the possibility that a trial of scar be allowed after more than

one caesarean section in selected patients⁶. The data consistently showed a success rate between 75% and 79% in some studies with satisfactory fetomaternal outcomes⁹. Presently more than 5000 cases of vaginal birth after more than one caesarean section have been reported in obstetric literature in last fifty years^{4,6}. Though, majority of such cases are unplanned and the mode of delivery is not the preferred management protocol as there is an unspoken agreement amongst obstetricians to offer an elective caesarean section after two caesarean sections^{7,13}. Interestingly, despite this growing information only 5% of obstetricians in the United Kingdom are prepared to conduct vaginal delivery after two caesarean sections, versus 97% after one previous caesarean section¹³.

The mode of delivery for parturients with more than one previous caesarean section should be

individualized, allowing those that satisfy a strict selection criteria, have no contraindication to vaginal delivery and desire a trial of scar to attempt safe vaginal delivery. Such selection criteria will include a non-recurrent indication for previous caesarean section, absence of fetal macrosomia and lower uterine segment scar thickness >3.5mm as judged by ultrasonography¹⁴. Facilities ought to be available for both close intrapartum fetomaternal monitoring and performance of emergency caesarean section at short notice [commencing a caesarean delivery within 30 minutes from the time the decision is made].

In conclusion, as obstetric literature continues to increase around vaginal birth after more than one caesarean section, the practice will be viewed with less disfavour. Obstetricians should manage each case on its merit. Hopefully the passage of time will dampen

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