Successful vaginal birth after four caesarean sections

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Abstract

A 37-year-old woman G5P4, who had four previous caesarean sections successfully delivered vaginally following bariatric surgery. She had undergone gastric bypass surgery a year prior where she lost a total of 45kg, dropping from a BMI 47 (morbidly obese) to BMI 28. She was counselled extensively antenatally regarding the risks but was adamant in attempting a vaginal birth after four caesarean sections (VBAC-4). A birth plan was agreed upon prior to labor after multiple consultant discussions. She had an uncomplicated spontaneous vaginal delivery in the hospital setting with good maternal and neonatal outcomes.

Background

Caesarean section is one of the most commonly performed surgical procedures worldwide to facilitate delivery of a fetus when vaginal birth is not thought to be safe or clinically feasible.[1] There is considerable variation in the proportion of women attempting vaginal birth after caesarean section (VBAC). The VBAC success rate also varies from 23-85% which can be affected by multiple factors in particular, morbid obesity.[2] This has been shown to increase the chance of uterine rupture and subsequent unsuccessful VBAC. The uterine rupture rate after one caesarean section is estimated at 0.47% and 1.26% after two caesarean sections, with insufficient data after more than two caesarean sections.[3]

Case Presentation

A 37-year-old female G5P4, who had four previous caesarean sections delivered vaginally after undergoing gastric bypass surgery a year prior. Following surgery her BMI was reduced from 47 (morbidly obese) to 28 at the time of delivery. Her total weight loss over that period was 45 kg (from 125kg to 80kg).

Her first delivery was via emergency cesarean section 18 years ago (2000) with failure to progress at 5cm due to incoordinate uterine contractions, after a 12-hour labor with a fetal birth weight of 3010g at 38 week's gestation. Her next two caesareans were elective caesarean sections (2012, 2013) of a 3410g and 3510g babies, respectively.

She expressed a strong preference for a vaginal birth when she was next pregnant in 2015. She was extensively counselled about the risks of a VBAC in the setting of 3 previous CS but was adamant she wanted to proceed. She ruptured her membranes at 39+6/40 and failed to establish in labor over the succeeding 24 hours. She underwent an emergency caesarean section. Both she and her baby recovered well post birth.

At a de-briefing visit held with the patient and her husband 6 weeks postpartum, she expressed extreme disappointment at not being able to achieve a vaginal birth. She was counselled at the time that weight loss would be likely to have a significant impact on any further pregnancy outcome.

She thus underwent gastric bypass surgery in 2018 Following that procedure she lost a total of 45kg. During this time her husband was under chemotherapy treatment for Non Hodgkin's lymphoma and had not saved any sperm. Despite this, she fell pregnant spontaneously and booked for antenatal care in mid 2018. Her morphology ultrasound scan at 20 weeks was normal.

She again requested VBAC to deliver this baby and again was apprised of the risks of this. She refused an elective caesarean section.

During this pregnancy, she reports an otherwise uncomplicated antenatal history with one episode of early pregnancy bleeding. She did not have any major problems with malabsorption apart from a B12 deficiency requiring 2 doses of B12 injections and her baby clinically grew normally with a normal growth scan at 32 weeks. The patient presented to hospital via ambulance in spontaneous labor after rupture of membranes at home 5 hours prior, at 38 weeks gestation. Intermittent auscultation of fetal heart was normal. She had previously refused continuous electronic fetal monitoring. Her first stage of labor was 3 hours 30 min, and her second stage was 55min. The labor was uncomplicated and she proceeded to have a spontaneous vaginal delivery

Outcome

Patient had a spontaneous vaginal delivery of a 3.45kg baby with APGARS of 8, 8. Patient had a first degree tear that did not require suturing and her estimated blood loss was 200mls,. Both patient and baby were discharged same day post partum.

Discussion

This delivery could easily have ended in severe morbidity and mortality with the absence of data to support a high success rate for a VBAC following 4 caesareans. However, with regards to our patient discussed, the significant weight loss preceding this pregnancy may have contributed to the favorable outcome.

Nevertheless, to the patient, the prospect of attempting, and eventually achieving, a vaginal birth was deeply satisfying. The patient would not be deterred from her chosen course, despite repeated counselling performed at antenatal visits by consultant staff. Out of these discussions came a birth plan, which was agreed between consultant staff and the patient, and all of this was agreed before the patient went into labour.

It is important that maternity units have or develop policies that allow them to support women who make outre requests for labour care, and that such women do give birth in a hospital setting to allow the opportunity for timely intervention, should significant problems arise. In the past, some women with various risks similar to these have chosen to give birth at home, because they have felt unsupported, or ostracized by conventional care givers, with disastrous outcomes.[4]

References

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