A maternal assisted caesarean section: planning for a new era in patient choice

C Kingsley, O Ivanov, A Surendran, S Kidwai
Department of Anaesthesia, The Queen Elizabeth Hospital Kings' Lynn NHS Foundation Trust, Norfolk, United Kingdom

INTRODUCTION

Maternal assisted caesarean sections (CS) allow the mother to aid the obstetrician in physically delivering the baby from the uterus under neuraxial blockade. We describe a case of maternal assisted CS under spinal anaesthesia and the standard operating procedure (SOP) developed to achieve sterility, safety and optimise mutlidisciplinary teamworking (MDT).

CASE REPORT

A 30-year-old para 2 presented at 39 weeks for an elective CS after two traumatic vaginal deliveries. The patient requested a maternal assisted CS with the hope of improving her birth experience. Prior to the CS, the anaesthetic and obstetric team met with the patient and partner to discuss their expectations, consent for the increased risks and logistics of the procedure. An SOP was created to optimise teamworking, ensure sterility and safety was maintained for the mother and baby. The SOP was reviewed by the MDT to be in theatre on the delivery day. Additional theatre time was planned to allow for the case and simulations prior to patient arrival. It was imperative the patient underwent full surgical scrubbing to maintain sterility until delivery of the placenta. Two anaesthetists were required to ensure this, one to remain scrubbed with the patient and the other to perform the spinal and manage infusions and drugs. The patient was cannulated in the antecubital fossa (to allow for scrubbing). After the spinal anaesthetic and patient positioning, the top gloves were removed and replaced by long surgical gloves. Surgical drapes were dropped and patient sat up prior to uterine incision, the patient's arms were placed over the drape and guided by the obstetrician to deliver the baby once the head and shoulders were already delivered. The baby was pulled directly up to the mother's chest, supported by a scrubbed midwife. Once the patient had delivered the placenta the drape was reinstated and the sterile gown cut to allow for skin to skin. The patient stated it was the **'best birthing experience ever.'**

DISCUSSION

Maternity services have been striving for woman-centred care with choice, continuity and control at the epicentre of this care since changing childbirth was published in 1993.1 As mothers become more empowered to have the birth of their choice, anaesthetists may be asked to offer this birthing experience more frequently. It poses logistical challenges that require careful thought and planning to ensure no compromise in quality of care or safety for mother and baby.

REFERENCES

1. Henderson J, Redshaw M. Change over time in women's views and experiences of maternity care in England, 1995-2014: A comparison using survey data. Midwifery. 2017;44:35-40.

STANDARD OPERATING PROCEDURE (SOP)

1. Formal brief for the case and role allocation with 2 anaesthetists available
2. IV access to be gained in upper forearm or ante-cubital fossa (consider 2 cannulas arm or foot – one as back up)
3. Monitoring to be placed - ECG on the upper back (not connected) and NIBP cuff on non-drip arm or calf
4. Connect infusions to patient (fluids and phenylephrine) with long extension and 3 x 3 way taps (taped to patients upper back). These are flushed through but have been disconnected from the fluid bag and 50ml phenylephrine syringe).
5. Patient to scrub (anaesthetist 2 to scrub simultaneously so that they can help position patient without desterilising)
6. For patient scrubbing: face mask, surgical gown, 2 x gloves
7. 2 x sterile drapes to be placed on the bed to allow patient to manoeuvre (placed by anaesthetist 1 once scrubbed ready to perform spinal)
8. Patient positioned fully scrubbed for spinal and connected to infusions by ODP (fluid bag and phenyl syringe)
9. Drip stand to be behind the bed to the left of patient if drip is in the left or drip stand to be in front of the bed to the right of patient if drip on the right (reduce tangle on lying down)
10. Spinal performed
11. Patient to be laid down with left lateral tilt on whilst remaining sterile (Anaesthetist 1 and 2 both remain sterile to help position, ODP to take legs and ensure phenylephrine started and monitoring on.
12. Anaesthetist 1 to unscrub
13. Partner to be sat at the head and informed not to touch the patient other than on the head to avoid desterilising
14. Anaesthetist 2 to remain scrubbed until baby out to help lift gown to check block/position patient without desterilising
15. Second back up cannula to be placed in the foot (if 2 not placed in arms at the beginning of case)
16. Anaesthetist 1 to check block
17. Catheter insertion
18. Midwife to then scrub
19. Mother's top gloves to be removed and long sterile gloves to be placed on patient prior to prepping (locate preoperatively)
20. Surgeons to clean and drape as per normal LSCS guidelines
21. Once surgeons prepped and ready to start a time out should occur to check midwife is scrubbed/long surgical gloves are on patient and team is happy
22. Drape up as per normal LSCS and patient arms folded to remain sterile
23. Drape to be dropped prior to uterine incision (drape to sit on top of mother under chin with arms over the top of the drape)
24. When surgeon is ready mother placed slightly head up and assists the surgeon with pulling baby onto chest
25. Syntocinon bolus to be given and table flattened
26. Midwife to then help hold baby on mother's chest to allow placenta delivery
27. If cord is long enough, when surgeon is ready the patient aids in removing placenta and pulling up onto chest
28. Syntocinon infusion to then be given if required
29. Drapes to be re-hung as for normal LSCS
30. For maternal skin-to-skin cut gown off and remove gloves