Case Report

Placenta percreta with bladder involvement

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Placenta percreta is a complication that can occur after multiple caesarean sections in pregnant women. The placenta grows through the borders of the uterus and adheres to organs in the vicinity of the uterus. The placenta is often placed in the scar of the uterus so it adheres to the bladder or the intestine. Large abrupt bleeding often complicates the procedure. Temperature fall is often seen after transfusion correcting the blood loss.

Introduction

A 34-year-old female, ASA 1 physical status, grava-, para-3. She has once given birth vaginal and thereafter 2 caesarean sections because of “UK” and Intra Uterine Growth Retardation - IUGR. Ultrasounds in the 18th week showed suspicion of placenta accrete. She was admitted in the 25th week because of pain in the bladder region and vaginal bleeding. She received Celestone and remained admitted until planned caesarean section in the 32nd week. The procedure took place in epidural anaesthesia and later in general anaesthesia after the baby was born.

Key words: anaesthesia, hypothermia, temperature, pregnant, placenta percreta.

An epidural bolus of 5 ml Bupivacaïne 5mg/ml was administered approximate every hour during the operation on top of the continuous infusion. The cardiovascular parameters were being monitored with HP Viridia CMS and the ventilation parameters are being monitored through an interface with the same UCW.

Anaesthesia

On the day of surgery the patient was transferred to the PACU having a catheter á demeure. The patient had received tabl. Pantoloc 40mg in the evening before and in the morning. A 20 gauge peripheral catheter was inserted and 1000ml of Ringer-Lactate was started. Standard monitoring was provided; 3 lead EKG, saturation and non-invasive blood pressure. A thoracic epidural was placed and bupivacaine 5mg/ml 5ml was given after the test dose and an epidural pump containing bupivacaine 2,5mg/ml mixed with morphine 50µg/ml 4ml/hour was started, a phenylephrine infusion pump and oxygen followed the patient. She was transferred to a radiology suite for placing balloon catheters in the iliac arteries. In case of major bleeding they were to be filled to help control bleeding. She was moved to the Operating suite for the caesarean section. Monitoring was provided with 3 lead EKG, oxygen supplement, saturation and direct blood pressure measurements. The Fluido® AirGuard System, blood and fluid warmer (TSCI) with a Trauma Set was connected to a 14-gauge peripheral catheter. In the epidural catheter lidocaine 1% 15ml, Sufetanil 10µg in combination with bicarbonate 1,5ml was given. The caesarean section was done when the epidural gave sufficient pain relief. A baby girl was born without any problems and the placenta was left in place. Following these procedures, the patient received a warm blanket. The patient was pre-oxygenated and given Sodium citrate before intubation. The induction medication consisted of 180 mg Propofol as bolus and continued at 400mg/hour, Remifentanil 2mg/hour and 100 mg suxamethonium. The patient was intubated with an OET , size 7.0 and a temperature probe was inserted in the nasopharynx, the patient’s temperature was 36.5 °C.

In the operating theatre the patient is ventilated (CATO PM 8050cd, Dräger) with a low flow oxygen/air combination. General anaesthesia is being maintained with propofol and Remifentanil infusions. An epidural bolus of 5 ml Bupivacaïne 5mg/ml was administered approximate every hour during the operation on top of the continuous infusion. The cardiovascular parameters were being monitored with HP Viridia CMS and the ventilation parameters are being monitored through an interface with the same UCW.
Hypothermia precautions
- **Blood and fluid warming**: Fluido® blood and fluid warmer with a Fluido® Trauma Set (The Surgical Company International), flow rates between 30 and 300 ml/min.
- **Conductive warming and pressure relief**: Mattress by Tempur
- **Others**: the patient’s shoulders and arms were covered with a warm touch upper body blanket 503-0870.

Case
The duration of the surgical procedure in the Operating room was 2.5 hours with a total blood loss of 8.5 l. The bleeding was substituted with 3600 ml of blood, 3240 ml of fresh frozen plasma, 1000 ml of thrombocyte concentration, 6000 ml of infusion fluid. The temperature of the patient was always above 36.2°C and when extubated at the same level.

Conclusion
By using the Fluido® AirGuard System, blood and fluid warmer (TSCI) with a Trauma Set the blood loss did not influence the temperature of the patient during and after the procedure.
In this case the patient’s temperature loss is due to procedures in preparation of the intervention, including positioning of the patient on the O.R. table. This pre-operative temperature drop is a recurring problem, but can be managed well pre and per operatively by using a combination of precaution methods. The Fluido® proofs to be capable of reaching the target temperature, varying from 37 until 39 degrees at the patient, also with low flows.