CASE THREE

Short case number: 3_13_3
Category: Endocrine & Reproductive
Discipline: Obstetrics and Gynaecology
Setting: Hospital-labour ward
Topic: Caesarean section, analgesia in labour and operative delivery

Case

Maya Swani, aged 23 years, G2P0 was induced at 37 weeks gestation for Pre-eclamptic toxaemia. At full dilatation the head failed to descend and caesarean section is advised. Maya also has gestational diabetes requiring insulin and has been on an insulin-dextrose infusion since presenting to the labour ward. You have been asked to obtain consent.

Questions

1. Why was Maya induced for Pre-eclamptic toxaemia with gestational diabetes?
2. What are the risks of caesarean section you would discuss when obtaining consent and what additional risks are present in this case?
3. Why is regional anaesthesia recommended for caesarean section?
4. List the main types of analgesia in labour.
5. Draw a schematic of the dermatomes and indicate epidural action and describe placement of an epidural.
6. List three methods to assist delivery in the second stage of labour.
7. List the conditions that need to be present before operative vaginal delivery may be undertaken.
8. List the difficulties Maya may experience in the puerperium.

Suggested Reading

- Abbott, J., Bowyer, L., & Finn, M. (2014). *Obstetrics and Gynaecology: an evidence-based guide (2nd ed). (*Chapter 15) Australia, Elsevier.
- Edmonds K, editor. Dewhurst's Textbook of Obstetrics and Gynaecology. 8th Edition. Wiley-Blackwell; 2012.
- K2MS online learning module: Pre-eclampsia

ANSWERS

1. Induction for PET.

PET is a progressive disorder of hypertension, oedema and proteinuria. Management involves treatment of hypertension and delivery if there is progressive evidence of maternal organ dysfunction, inability to control blood pressure, or concerns for foetal wellbeing.

2. Risks of LSCS

When obtaining consent for caesarean section in labour be aware of emergency situation in which couple are aware this is safest option for mother &/child.

Have to consider maternal and foetal factors.

Maternal:
Haemorrhage from atonic uterus or wound extension, may require blood transfusion, additional surgery e.g. ligation uterine, ovarian or iliac vessels or hysterectomy, infection, bladder/ureter, bowel damage, VTE.
Repeat caesarean section increases risk placenta previa/ placenta accreta. Rupture of uterine scar in future labour.
Risk wound infection increased when obese or BSL>9.

Foetal:
Direct injury to foetus, respiratory compromise due to early delivery (TTN and RDS), prematurity risks – hypoglycaemia, temperature regulation, gut function.

Anaesthetic:
Regional (headache, epidural haemorrhage leading to paralysis, spinal abscess) and/or GA (aspiration, pneumonia, failure to intubate, hypoxia)

3. Why is Regional Anaesthesia recommended?

GA risk significant due to risk of regurgitation and aspiration plus the real risk of not being able to intubate and hence have a period of prolonged hypoxia causing significant damage to the foetus. Mother does not experience birth and partner is not present in OT.

Regional lowers blood pressure and avoids preintubation peak. Preferred in PET.
Regional allows the woman and partner to interact in the birth in OT. Regional avoids respiratory depression of the foetus.

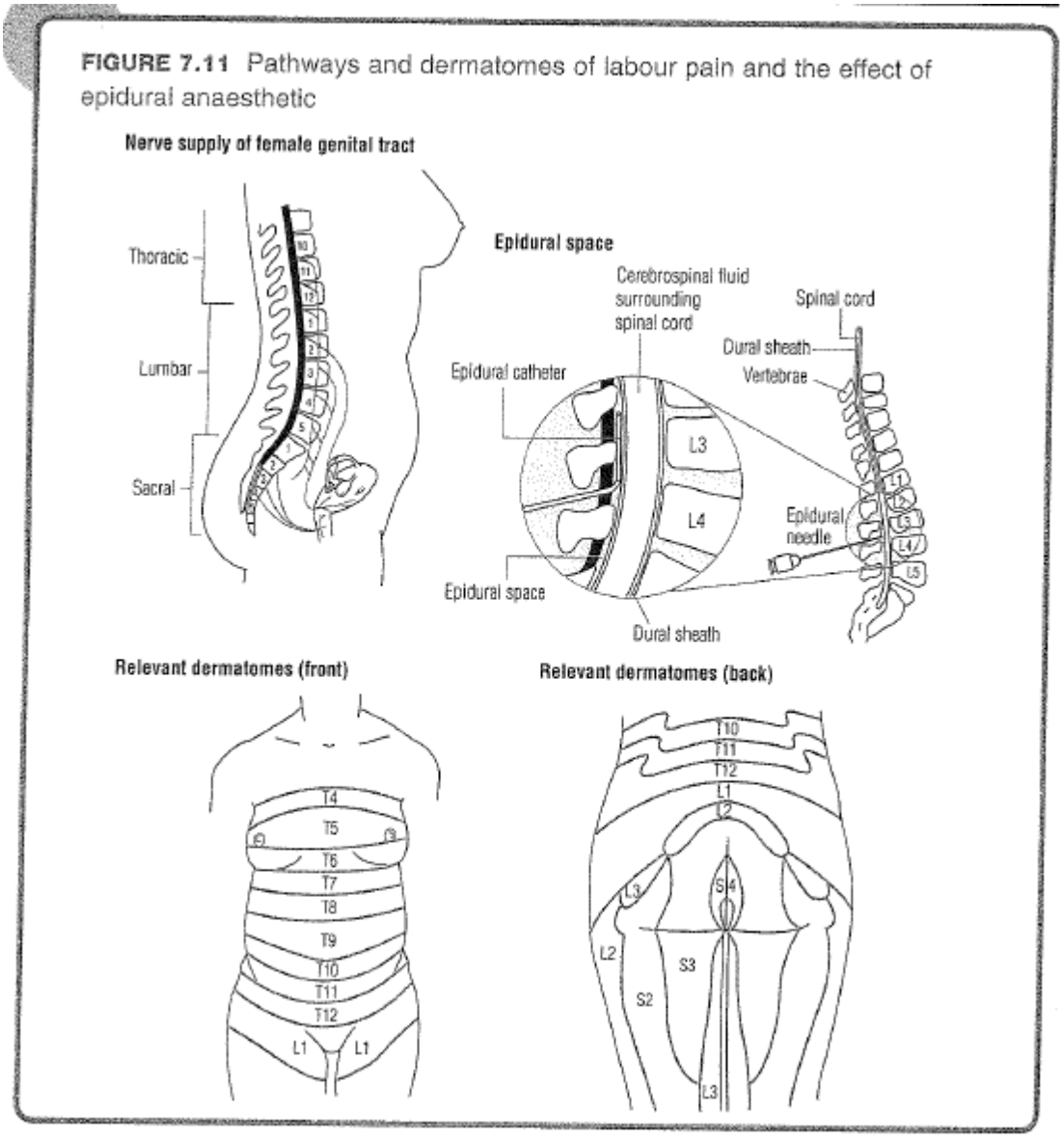
Regional also allows for a continuation of pain relief post partum via an epidural catheter.

4. List the main types of analgesia used in labour.

PP 269 Table 7.3 O'Connor and Kovacs

Method	Use	Efficacy	Side effects
TENS	Self administered	Partial only	Nil
Entonox	Self administered	75% of women find it useful – all stages of labour	Safe – prolonged use may cause dry mouth and dizziness, light headedness
Morphine	IMI/SC morphine 5-10mg	Poor analgesia,sedation	Nausea, sedation, foetal sedation
Epidural	Anaesthetist required – bolus and continuous infusion	Only agent with potential for 100% relief (may still have a patchy block)	Headache <1% Hypotension Intravascular injection leading to fitting Maternal motor blockade Haematoma Abscess

5. Draw a schematic of the dermatomes and indicate epidural action and be able to describe placement of an epidural.



6. List 3 methods to assist in the second stage of labour.

Episiotomy, Vacuum extraction, Forceps

7. List the conditions that must be present before an operative vaginal delivery may be attempted.

F - fully dilated
O – operator experienced and credentialed in procedure
R – Ruptured membranes
C – Cephalic presentation
E – Engaged (below spines)/empty bladder
P – Position must be identified OA,OP,OT
S – Spines (engaged)

Why engaged twice? Disaster will occur if the Foetal head is NOT engaged (below spines) and the cervix is NOT fully dilated (note: there is no such thing as “Fully dilated with an anterior or posterior lip” – that is 9cm and should NOT have an operative delivery).

8. **Risks in puerperium**

PET may deteriorate. Treatment of hypertension may require supervision for six weeks.
BSL’s should normalise after delivery but may continue to need treatment. Repeat glucose tolerance test at 6 weeks.
Baby will require monitoring BSL, increased risk jaundice.

Breast feeding difficulties
Risk VTE, mobilise, thromboprophylaxis
Wound infection, sepsis
Post natal depression