Obs and Gynae

Fellowship Questions 2017

**Question 1**

**A 40 year old indigenous female from a remote community has been flown into the city to your tertiary ED. She is pregnant with estimated, but unsure, gestation of 7 weeks. She has PV bleeding and abdominal pain. BHCG was 1300 4 days ago. She has IV access.**

**P 100**

**BP 90/70**

**Sats 99%**

**RR 16**

**Temp 36.9**

a) List the important features in the history that will help you to differentiate between a miscarriage and an ectopic pregnancy? (6 marks)

Location of pain – unilateral vs central or bilateral

Type of pain – crampy like a period more likely miscarriage

Any previous scans during the pregnancy

Risk factors for ectopic – e.g. anatomical/surgery/PID/IUD/prev ectopic etc

Passage of products

Amount of bleeding – miscarriage usually heavier than ectopic

Shoulder tip pain

Syncope

b) List the 5 **most important** tests you will order to investigate her presentation, giving reasons for each? (5 marks)

FBC – evidence of anaemia suggests significant intra-peritoneal bleed

BHCG – If doubled every 48 hrs i-e now 5200 then less likely ectopic

Group and hold – to determine if needs AntiD and in case needs transfusion

FAST scan – looking for free fluid of ruptured ectopic

Formal USS – to determine if IAP or ectopic definitively

**30 mins later the arrest buzzer is pressed for this patient . She is sitting up in a resus bed, white and barely responsive. Airway is patent and she is breathing adequately.**

**Observations**

**P 40**

**BP 50/30**

**Sats 99%**

**RR 26**

**Temp 37.1**

c) What are the 2 **most likely** causes of her deterioration?

Cervical shock due to products in the cervical os

Haemorrhagic shock

d) What will be your first 5 actions ? (5 marks)

Lie patient flat/head down

Immediate speculum to pull products from os/check degree of bleeding

Apply O2 15L NRB

Fluid bolus 20mls/kg – consider O negative if obvious severe haemorrhage

Recheck VBG Hb

**Question 2**

**A 32 year old female G5P4 presents 90mins after an unplanned home birth. She has had a post partum haemorrhage of unknown volume. The newborn is well and has been taken to the nursery for assessment. She has 2 wide bore IV lines in situ and full non-invasive monitoring in the resus room**

**P130**

**BP 70/56**

**Sats 95%**

**RR 32**

**Temp 37.4**

a) List 5 causes of PPH that you will need to consider? (5 marks)

Tissue – RPOC

Trauma – cervical laceration/birth canal trauma

Thrombin – coagulopathy/DIC/amniotic embolism etc

Tone – uterine atony

Uterine Inversion

Uterine Rupture

Twin – less likely 90 mins later

**She is becoming more unresponsive**

b) List your immediate management (6 marks)

Call for help – O&G/anaesthetics as may need theatre

Rub up uterus to encourage tone

Speculum to check for products in Os and amount of bleeding/lacerations/uterine inversion

Consider O neg blood/MTP depending on amount of visualised blood loss

Oxytocin 10IU stat then 40IU in 1L, give 500mls over 10mins then 250ml/hr

(Carboprost 0.25mg IM repeated every 10mins up to 2mg OR Misoprostol 1mg pr are alternatives)

**Her partner arrives and states that they are Jehovah’s Witnesses. The patient had not mentioned this when she was awake. She is unable to give consent to blood products as she is obtunded.**

c) How will you proceed with regard to the need for urgent transfusion? (3 marks)

Seek a legal advanced directive

If not available give immediately life saving treatment until can establish her wishes

Consider use of products other than blood or its constituents e.g. albumin/colloids

Consider the use of a cell saver – potentially more acceptable?

Consult with hospital legal team

**Question 3**

**A 23 year old female, G1P0, presents to ED for the 4th time in the last 2 weeks. She has an estimated gestation by dates of 7/40. She has been vomiting and has been unable to tolerate any fluids or food for the last 24 hours. She has some mild abdominal discomfort that she thinks is muscular due to retching. The presumptive diagnosis of hyperemesis gravidarum is made.**

**She has observations within normal limits**

a) What are the clinical hallmarks/defining features of hyperemesis gravidarum (4 marks)

Intractable vomiting

Weight loss

Volume Depletion

Hypokaleamia or Ketonuria

Usually first 12 weeks of pregnancy

b) Complete the table below with 4 options for acute antiemetic treatment with 2 cons/side effects of each (12 marks)

|  |  |
| --- | --- |
| **Antiemetic with dose/freq** | **Side Effects/Cons** |
|  |  |
|  |  |
|  |  |
|  |  |

|  |  |
| --- | --- |
| **Antiemetic with dose/freq** | **Side Effects/Cons** |
| Promethazine 12.5-25mg po/pr 4hrly | Causes drowsiness, CAT C |
| Ondansetron 4-8mg, 6-12hrly, max 16mg/day | Expensive, HA, constipation, diarrhoea, lightheadedness |
| Metoclopramide 10mg tds po/iv | Risk of akithisia/dystonic reaction, poor efficacy |
| Prochlorperazine | Causes drowsiness/hypotension/dystonic reactions |
| Chlorpromazine | Causes drowsiness/dystonic reaction, CAT C |

c) List 2 maintainence antiemetic therapies that can be commenced for ongoing prevention of N&V (2 marks)

Doxylamine with pyridoxine (B6) or B6 alone

Diphenhydramine

Ginger

d) List 6 alternative diagnoses that you will consider (6 marks)

Ectopic pregnancy

Cholecystitis/cholelithiasis

Gastroenteritis

Pancreatitis

Appendicitis

Hepatitis

Peptic ulcer

Pyelonephritis

e) What criteria will you use to determine when the patient is safe to discharge (4 marks)

Diagnosis certain i.e. ectopic/other IA causes ruled out if clinically suspected

Able to tolerate fluids

Resolution of ketonuria/dehydration/electrolyte abnormalities

Favourable social circumstances e.g supported, transport, communication

**Question 4**

**A 36 year old female is sent to ED by her GP with hypertension in pregnancy. She is 32 weeks gestation and has had an uncomplicated pregnancy thus far.**

**Obs**

**BP 160/100**

**P 100**

**Sats 99% RA**

**RR 22**

**Temp 37.2**

a) What are the diagnostic criteria for preeclampsia (3 marks)

SBP >=140

DBP>=90

Proteinuria >0.3g/24 hrs

>20 weeks gestation

b) What features in the **history** will you seek to determine if **SEVERE** preeclampsia exists (4 marks)

SOB/wheeze/cyanosis – suggesting pulmonary oedema

Epigastric pain/RUQ pain – suggesting HELLP

Easy bruising – low platelets of HELLP

Reduced urine output – oliguria <500mls/24hrs

c) List 7 initial tests will you order, with justification for each (7 marks)

FBC – can see haemoconcentration or falling HCT, low plts with HELLP

Creatinine – renal impairment and oliguria with severe disease

Transaminases – elevated in HELLP

LDH – can suggest microangiopathic haemolysis of HELLP

Urinary protein – part of diagnostic criteria for preeclampsia

Protein:Cr Ratio - >0.1-0.3 suggests need for a urine 24 hrs collection

Uric Acid - >5.5 mg/dL suggests preeclampsia superimposed on chronic hypertension

CTG – for fetal wellbeing check

d) Complete the table below with 3 ANTIHYPERTENSIVES that you could consider using for acute severe preeclampsia in this patient

|  |  |
| --- | --- |
| Agent | Dose and Route |
|  |  |
|  |  |
|  |  |
|  |  |

|  |  |
| --- | --- |
| **Agent** | **Dose and Route** |
| Labetolol | 10mg Iv then 20-40mg every 10mins up to 300mg or infusion of 1-2mg/min  |
| Nifedipine | 10mg orally 30 minutely |
| Hydralazine | 5-10mg over 5-10mins, then 5mg/hr IVI |
| MgSO4Dilates as well as preventing/treating seizures | 4-6g over 20-30mins then 2g/hr |

SNIP not appropriate as only for use within 30mins of delivery

As per Tintinalli

**The patient has a 5 minute tonic clonic seizure and is post ictal but recovering, with a GCS of 14. She has non invastive monitoring in the resus room and 2 IV lines.**

**e)** Aside from antihypertensives list the other actions you will take to treat and monitor her eclampsia (6 marks)

MgSO4 – 4-6g over 20-30mins then 2g/hr – watching the level of consciousness and reflexes, plus monitoring Mg levels every 4-6 hrs

Corticosteroids for fetal maturation – Betamethasone 11.4g po

Continuous CTG monitoring

IDC

Correct intravascular fluid depletion with cautious small boluses of NaCl

Arterial line with continuous invasive monitoring

Urgently contact O&G/ICU as needs delivery of fetus as soon as possible

**Question 5**

**You receive notification from the ambulance service that they are bringing a G6P4 female into your rural ED She is in labour and is currently pushing. Her estimated gestation is 30 weeks. She has not received any antenatal care. There is no obstetric/ICU/anaesthetic service at your site, and most women are transferred to the nearest tertiary centre 50km away prior to the onset of labour. There is no one capable of doing a C-Section safely.**

a) How will you prepare for the arrival of this patient? (6 marks)

Notify midwife/paediatrician if available. Get help – phone/telehealth link up from tertiary centre if possible

Arrange a maternal and child team to manage both patients – allocate roles etc

Set up the resusitaire/warm towels/paed resus equipment

Prepare a resus bay

Get equipment ready – delivery pack, nitrous, analgesia, IV lines, IV fluids, ensure O neg blood available, Oxytocin

Contact retrieval services to be en route – high likelyhood that the child will be significantly unwell

**On arrival the patient is screaming and non compliant. When you examine her you notice that there is umbilical cord hanging out of the vagina. She has 2 IV lines and is fully monitored.**

b) Outline your management of this abnormal presentation (8 marks)

Knee to chest or Simms position

Replace cord in vagina, cover with a sterile wet gauze to prevent drying out

Push presenting part up to prevent pressure on the cord

Discourage the patient from pushing

Analgesia – nitrous/opiates/panadol

Tocolysis with salbutamol

IDC and fill bladder with 1000mls of water

Corticosteroids – betamethasone 11.4mg po

Urgent transfer to tertiary obstetric centre for CSection– will need to transfer with a hand insitu on presenting part

**Question 6**

A 14 year old female presents 1 week after first intercourse with her partner. She is complaining of severe dysuria and vulval itch. She is avoiding passing urine due to the pain. On talking to the patient you judge her to be Gillick competent.

a) What 6 differential diagnoses do you need to consider for her symptoms (6 marks)

Herpes infection

UTI

PID – chlamydia/gonnorhoea/trichomonas

Genital tract trauma

Candida

Others – Lichen Sclerosis; Non specific vulvovaginitis – e.g allergic/contact/perfumed soaps/condom allergy;

**When you examine her she is very distressed with pain**

b) Outline the tests that you will offer to perform

Swabs of lesions for herpes simplex

HVS and endocerival swabs for chlamydia, gonorrhoea, trichomonas, candida

Urine dipstick and MCS/gonno/chlamydia

Offer HIV, syphilis serology, hepatitis B&C screening – blood tests

Urine or blood HCG testing

**Her partner arrives at the hospital and he appears to be approximately 30 years old. You see her kissing him intimately in the waiting room, but then she later denies that he is her boyfriend**

c) How will you approach this situation (2 marks)

This is statutory rape and is illegal, have a duty of care to the vulnerable minor

Discuss with the patient and try to encourage her to seek parental input/support if appropriate

Requires mandatory reporting to police and child services.

**Question 7**

**Your registrar has asked you to review a 26 year old female who presents with midline pelvic pain for the last 2 years. She has been to her GP several times and has had several pelvic ultrasounds that have been normal during episodes of pain. This is her 7th presentation to ED in a year. She is demanding morphine. She was previously referred to the gynae team for consideration of a laparoscopy but failed to attend the appointment.**

**Urine BHCG and dipstick is negative**

**She has had a normal FBC/EUC/LFT/CMP/Coag today**

**Her cervix looks normal and there is no vaginal discharge or cervical excitation**

**She doesn’t report any other symptoms at all apart from severe pelvis pain on a full systems enquiry**

a) What diagnoses do you think are most likely, given her negative investigations thus far (3 marks)

Mittelschmertz Pain

Endometriosis

Psychological causes e.g. domestic abuse/cry for help

Drug seeking behaviour

**The patient is becoming agitated and is pacing around the waiting room. She is shouting loudly and threatening to sue the hospital for “ignoring her”.**

b) What non invasive strategies can you use to try and de-escalate her behaviour whilst maintaining safety (8 marks)

See the patient immediately

Enlist a friend or family member to help

Move to a quieter area of ED

Acknowledge her distress

Alert security/take a duress alarm

Allow more personal space that is usual, ensure you ae

Speak quietly and calmly, do not stand over the patient, sit down if possible

Allow her time to speak, and listen intently

Keep your hands visable and do not touch the patient

Ensure no weapons e.g. hot cups of tea

Retreat if increasing agitation

**The immediate attempts to de-escalate are unsuccessful and she continues to be verbally aggressive.**

c) Assuming she is a competent adult what would be the next step (1 mark)

Escort the patient from the hospital grounds by security/police

**Question 8**

A 23 year old female presents to ED with 4 days of epigastric pain. She is 32 weeks pregnant. She has been taking Panadol for her pain. Her GP has already performed some baseline blood tests shown below

BP 130/95

P 100

Sats 97%

RR 23

Temp 37.1



a) List your differential diagnoses (6 marks)

Preeclampsia with HELLP

Acute fatty liver of pregnancy

Hepatotoxins e.g. paracetamol in excess?

Gallstones and their complications

Pancreatitis

Other potential causes of haemolysis/low platelets e.g MAHA/snake bite/TTP etc – any that are reasonable

**During your assessment of the patient she starts to cry and admits that her partner has been verbally and physically aggressive towards her recently. She has 2 children at home, aged 2 and 4 and is concerned for their safety.**

**2 views of her bedside USS are shown below**

**RUQ**



**LUQ**



b) What do these images demonstrate (2 marks)

Normal RUQ view

Positive FF in LUQ above the spleen ? ruptured viscus secondary to trauma/other cause

c) What actions will you take in the next hour (7 marks)

Analgesia – avoid Panadol, titrated opiates

Ensure IV access and monitoring

Arrange CTG

Cross match blood and contact haematologist as may need complex products given potential haemolysis/HELLP

Formal USS – with consideration of CT, risk to be discussed with patient

Contact O&G plus surgical team - ? need exploratory laparoscopy

Contact FACS and police to ensure safety of children

**Question 9**

A 79 year old female presents with post menopausal bleeding and a feeling of dragging in her pelvis. She has a history of uncontrolled hypertension and T2DM.

a) List the potential differential diagnoses (4 marks)

Cancer – cervical, endometrial, ovarian

Atrophic Vaginitis

Exogenous Hormone Use

Uterine Prolapse

When you attempt a speculum examination you see the following



b) What is this abnormality (2 marks)

Uterine prolapse – Complete or Procedentia

**The O&G registrar opts to admit the patient to hospital for an immediate operative management**

c) What discharge advice/information would you give to women presenting with lesser degrees of the same problem (4 marks)

Lose weight

Avoid lifting and straining

Keep bowels regular and not constipated – laxatives

Pelvic floor exercises

Referral to O&G for consideration of ring pessary/surgery