MSSBU OSCE PRACTICE CASE 4_02_03

Station Vignette

Mrs. Louise, a 30-year-old female, is currently 27+4 weeks pregnant. Her midwife recorded her blood pressure in clinic early today and is concerned that it is elevated.

Her blood pressure was recorded as 156/110

You are the Junior Doctor on the Obstetric ward today. Please take a history from Mrs. Louise.

TASK

You have a total of **7 minutes** to take a history.

This includes:

- History of presenting complaint
- Constitutional history
- Past medical history
- Medications history
- Social history
- Family history
- Focussed systems review

At the end of the allotted time, you will have **1 minute** to answer the examiner's questions.

You do **NOT** need to complete a physical examination.

PATIENT INSTRUCTIONS

Name	Samantha Louise
DOB	01/08/1992 (30 years)
History	- Headache - Site – frontal headache - Onset 3 days ago whilst resting mid-day - Character – dull hedache, 6/10 pain - Radiation – nil - Exacerbating – nil - Relieving – heat pack relieved a little - Associated sx – feet + wrists became swollen the past week - Denies – no abdominal pain, no N&V, no seizures or altered vision
OBGYN Hx:	**Obstetric Hx:** - **Current pregnancy** o **Gestation & expected delivery date – October 20th** o Pregnancy confirmed – serum bhcg after missed period o Progress & any problems throughout pregnancy – everything normal apart from raised BP controlled through diet o Blood type & rhesus status – Blood type A, rhesus + o Antenatal care – scans upto date & normal o No twin pregnancy o Movement of baby – changed? - **Past pregnancy** o Never been pregnant, never had terminations or miscarriages **Gynaecological Hx;** - Menstrual – normal cycle length - No dysmenorrhoea, no intermenstrual or postcoital bleeding - Last cervical smear was normal at 25 yrs - No previous STIs - No abnormal vaginal discharge or urinary symptoms
Other systems review	**Neurological –** seizures, fits, faints, visual disturbances, headache **Urinary –** frequency, onset, dysuria, colour, smell
Constitutional	- Normal energy levels – slightly tired due to headache - No fevers, no rashes, no N&V - No loss of appetite - Normal weight gain as per pregnancy - No sick contacts
Past medical Hx	- Gestational HTN – lifestyle & diet controlled
Medications	- Nil, nil allergies
Family Hx	- No relevant
Social Hx	- Non-smoker, non-drinker, nil IVDU - Nil recent travel, IUTD - Occupation – high school teacher - Living – lives with husband

EXAMINER QUESTIONS

1. Provide **two (2)** differential diagnoses based on the findings of your history.

2. List **three (3)** investigations you would like to perform for Mrs. Louise.

MARKING CRITERIA – Case 4_02_03

Item	Criteria	Mark
Introduction	▢ Hand hygiene ▢ Appropriate introduction ▢ Explains personal role and gains consent	/3
Presenting complaint	▢ Leads with open question ▢ Follows with another open question	/2
History of presenting complaint	▢ Determine onset and progression ▢ Ask about headache and oedema – onset, location, severity ▢ Screens for presence of epigastric pain, blurred vision, N&V ▢ Asks about exacerbating/relieving factors ▢ Screens for any additional concerns/patient worry	/5
Constitutional history	▢ 0.5 points for each of the following: diet, appetite, weight loss, sleep, energy, exercise ▢ 0.5 points for each of the following systemic symptoms: fevers, chills, night sweats, rash	/5
Past medical history	▢ Past medical/surgical history ▢ Screen for relevant conditions/risk factors	/2
Medications history	▢ Ask over the counter, prescription & herbal remedies ▢ Allergies	/2
Family history	▢ Ask relevant family history	/1
OBGYN Hx	▢ Gynaecological history – Contraception, STI, cervical screening ▢ Obstetric history – gravity, parity, outcome of pregnancy	/5
Social history	▢ Occupation, living situation, smoking, recreational drugs	/4
Questions	▢ Differentials – 2 points for any two of: pre-eclampsia, gestational hypertension, pre-existing hypertension ▢ Investigations – 3 points for any three of: BP measurement, urine dipstick, FBC, LFTs, coagulation screen, U&Es, CTG of foetus	/5
Communication skills	▢ Appropriate questioning style ▢ Active listening ▢ Systematic approach to Hx taking ▢ Appropriate conclusion and summary	/4
Global score	Overall impression of candidate based on warmth, clarity and competence: 1 = fail 2 = borderline 3 = pass/expected 4 = good 5 = excellent	/5
	Total	/43

Extra information

1. Differential diagnosis	- Pre-eclampsia with early onset HELLP (Low platelets) - Pre-existing hypertension - Gestational hypertension
2. What is the cause of Pre-eclampsia	• Uretero-placental insufficiency
3. What are the risk factors for developing Pre-eclampsia?	High Risk: • Previous pre-eclampsia • Pre-existing hypertension • CKD • Diabetes mellitus • Autoimmune disease -SLE and antiphospholipid syndrome Moderate Risk • 10 years or more since last pregnancy • First Pregnancy • Age ≥ 40 • BMI ≥ 35 • Family history of pre-eclampsia • Multiple pregnancy
4. How do you diagnose severe pre-eclampsia?	• BP measurement ≥160mmHg systolic (in the absence of pre-existing HTN) • BP measurement ≥110mmHg diastolic (in the absence of pre-existing HTN) • Symptoms • Biochemical changes (PIGF test or sFlt/PIGF ratio) • Haematological changes
5. How would you manage a patient with severe Pre-eclampsia?	• ADMIT! • Monitor BP more than 4 times a day • Blood tests 3 times per week • Commence Labetalol (providing no contraindications) • Perform ultrasound examination to assess foetal growth with umbilical artery doppler • CTG of foetus
	• If unstable proceed to C-section if not improving. • Magnesium sulphate if concerned of eclampsia, depending on gestation.
6. How is pre-eclampsia graded?	• Mild: BP140-149/90-99 mmHg • Moderate 150-159/100-109 mmHg • Severe ≥160/110 mmHg • Additionally presence of proteinuria o Either 0.3g in 24hr Urine o Or +1 protein on urine dipstick
7. What biochemical markers are associated with a poor prognosis?	• HELLP syndrome o First biochemical marker to change is a drop in platelets (<150 x 10^9/L). o Abnormal LFTs: ALT or AST >70 IU/L o Rise in creatinine >90 micromol/litre • Progression to seizures • Signs of pulmonary oedema
8. What medications can you give to prevent future attacks of pre-eclampsia?	• 75mg Aspirin OD from 12 weeks gestation.

Explain the following information & management plan to patient (Year 4 prep)

- “Your presentation including your symptoms and the tests that have been acquired show that you have a condition called pre-eclampsia.”
- Provide a description if the patient has never heard of this condition before – “Pre-Eclampsia occurs when the placenta (organ that transfers nutrients from the mother’s blood to the baby’s blood) does not work efficiently and as a result the blood pressure raises. This can sometimes affect the mother’s organs (such as liver, kidney and blood clotting) and baby’s growth – IF not treated.
- Plan
    - Admission to Maternal Assessment unit
    - Anti-hypertensives – labetalol/hydralazine
    - Magnesium sulphate – prophylactically if needed
    - Monitor urine output + fluid restriction (if needed)

    If maternal or foetal life is threatened she will have to deliver (explain this to mum)

References:

1. https://www.health.qld.gov.au/__data/assets/pdf_file/0034/139948/g-hdp.pdf
2. https://www.ambulance.qld.gov.au/docs/clinical/cpg/CPG_Pre%20eclampsia.pdf