Obstetric Emergencies

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In this podcast, James talks to Dr Nhi Nguyen about the management of obstetric emergencies on the wards.

About Dr Nhi Nguyen

Nhi Nguyen is a Staff Specialist in the Department of Intensive Care Medicine and Co-Director of Prevocational Training and Education at Nepean Hospital. Nhi provides advice on the antenatal and peripartum management of pregnant patients with medical problems and has an interest in the critically ill obstetric patient.

Obstetric Emergencies

With Dr Nhi Nguyen, Intensive Care Specialist, Obstetric Physician, and Director of Prevocational Education and Training at Nepean Hospital, New South Wales, Australia.

Introduction

Obstetric emergencies can be confronting or frightening for doctors of all levels of experience. Our management goals are the same for pregnant patients as they are for non-pregnant patients, however, the wellbeing of both mother and baby must be considered. In general terms, what is good for the mother is good for the baby. The physiological changes of pregnancy can affect the interpretation of physical signs. It is important to escalate quickly to involve consultants in the management of obstetric emergencies.

Case

A 29-year-old woman who is G1P0 presents at full term in labour. She is admitted to the delivery ward, then a rapid response call is made for a seizure and decreasing level of consciousness.

1. What is your immediate management of this patient?

- **Follow the basic principles of Airway, Breathing, Circulation**

- Often seizures are brief, and simple measures are all that is required
- Place patient in left lateral position – consider aortocaval compression
- Provide high-flow oxygen
- Commence IV fluids
- The most common causes of seizures are the same as in other patients. However, a seizure in pregnancy can be a manifestation of eclampsia
- Consider Midazolam 2.5mg IV if the seizure is ongoing
- Involve the obstetrician

2. What are the other important diagnoses to consider in this patient?

- Inspect the patient's Obstetric Card for a history of a seizure disorder
- Eclampsia – especially if there is a background of hypertension in pregnancy
    - Pre-eclampsia: hypertension plus end-organ damage, which occurs after 20 weeks gestation. Symptoms: headache, epigastric pain
- Local anaesthetic toxicity following an epidural, or adverse drug reaction
- Hypoglycaemia – growing number of patients with gestational diabetes, who may be on insulin and require a dextrose infusion during delivery

3. What other diagnoses should we consider if the patient had collapsed, without a seizure?

- Postural hypotension
- Hyperventilation associated with inhalational analgesic (such as nitrous oxide) – can lead tohypocarbia and unconsciousness
- Medication related
- Rare: aortic dissection, myocardial infarction, stroke

4. General management principles

- Prevention of further seizures, and delivery of the baby are the most important principles
- Loading dose of magnesium 4g IV (Note: each 10mmol ampoule is roughly 2.5 g magnesium)for prevention of further seizures
- Very little role for agents such as phenytoin

5. Examination features

- Oedema
- Hyper-reflexia
- Sustained clonus

6. Investigations

- BSL
- LFT
- Urine albumin:creatinine
- Uric acid
- Coagulation studies
- FBC – thrombocytopenia

Take home messages

- Scary situation
- Delivery of the baby is vitally important
- Simple measures can make a big difference: left lateral positioning of patient, high-flow oxygen, establish IV access, magnesium load 4g IV, expedite delivery

Case 2 –A 35 year old lady, who is G4P3 and 27 weeks pregnant presents to the delivery ward complaining of shortness of breath.

1. What is the approach to the assessment of this patient?

- Most women are short of breath in the second trimester of pregnancy – the art of this assessment is to identify which symptoms are truly concerning
- Be mindful of the "well" paradigm – patients and staff can normalise pregnancy and downplay symptoms
- Careful history is crucial
- Important diagnoses:
    - Pulmonary Embolism

        - Hypercoagulable state in pregnancy and gravid uterus increases risk of DVT
        - Clinical suspicion must be high, irrespective of history
        - Investigations:
            - CXR – exclude pneumonia
            - V/Q scan – good negative predictor, less radiation exposure
            - CTPA
            - D-dimer – unreliable
        - Women who have significant morbidity or mortality from PE often have unrecognisedsymptoms
        - If in doubt, the safest option is to admit for observation and commence enoxaparin
    - Cardiomyopathy of pregnancy
        - Rare
        - Cardiac ECHO

2. Features of history and examination

- **History:**
    - History of asthma, allergy, cardiac disease
    - Are the symptoms similar to pre-pregnancy illnesses (with an exacerbation now due to the increased physiological demands of pregnancy) or is this a new condition?
- **Examination:**
    - Signs may be hidden by the physiological changes of pregnancy
    - Tachycardia is often present in pregnancy. If not tachycardic, this goes against a diagnosis of PE
    - Clinical exam is unreliable in excluding DVT

3. Which consultants should be involved?

- Obstetrician
- Obstetric medical service
- Respiratory physician

Take home messages

- Spend time on a very careful history
- Be open to a broad spectrum of diagnoses and constantly reassess, especially if the patient does not respond to treatment
- Women don't present to hospital without being concerned
- Morbidity and mortality is often due to symptoms which are ignored
- Be mindful of the hypercoagulable state which persists for six weeks post-partum

Reference

- More of Dr Nguyen's talks are available on the Intensive Care Network

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- What I wish I knew about spinals and epidurals as an O&G Resident

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