Pregnancy induced hypertension

ASSIGN BUSTER

[pic] OBSTETRICS POSTING CASE WRITE-UP PREGNANCY INDUCE HYPERTENSION Name: Muhammad Azraie B. Mat Ali Matrix Number: 1090265 Patient Identification Name: Nur Asilah Bt. Johari Age: 23 year old Race: Malay Sex: Female Address: Taman Raja Abdullah Occupation: Student D. O. A. : 13 March 2013 I/C: 900208035442 LMP: 27 June 2012 – sure of date – not on breast feeding – not on contraceptive – regular menses POA: 37/52 EDD: 4 April 2013 Chief Complaint(s) This is a referred case from Klinik Kesihatan Jalan Raja Abdullah for high blood pressure during regular ante-natal check-up for 1 day duration.

History Of Presenting Illness Patient was apparently well until 1 day ago when she was diagnosed to have high blood pressure during her regular antenatal check-up at Klinik Kesihatan Jalan Raja Abdullah. She was normotensive throughout the antenatal check-up before until yesterday when the doctor noticed that her blood pressure was high which was 170/100 mmHg for three time consecutively. She denied of having an essential hypertension before and no positive family history of hypertension.

On further questioning, she had headache, otherwise she not had any sign and symtoms of impending eclampsia such as blurring of vision, vomiting, epigastric pain and syncope prior to the admission. She claimed the first episode of headache was during last antenatal check up where she was diagnosed to have high blood pressure. History Of Presenting Pregnancy Pregnancy was suspected when she missed her menses for 4/52. It was confirmed by doing urine pregnancy test (UPT) at private clinic. At that time, no early ultrasound was done.

She claimed that she experienced symptoms of early pregnancy such as nausea, vomiting and headache that last until 20/52 POA. Booking was done during 13/52 POA at Klinik Kesihatan Jalan Raja Abdullah. At that time, blood and urine investigation was done. Her blood pressure at that time was 112/70 mmHg. Blood group was O positive and VDRL was non-reactive. Urine investigations also normal. She attended all the ante-natal clinic regularly and all was uneventful. Symphyseal-fundal height was correspond to the date throughout the check-up.

She was also normotensive throughout the visit until the last visit when her blood pressure was rise up. Quickening was felt at 20/52 POA and it was increasing in the frequency and intensity. Past Obstetric History She married in year 2011 at the age of 21 and this is her first pregnancy. Past Gynaecology History She attained menarche at the age of 13. She had a regular menses flow of 5 to 6 days duration with 28 to 30 days per cycle. It peaks on day 2 with no history of menorrhagia and dysmenorrhea. She denied of having any history of intermenstrual bleed and post-coital bleed.

She not practicing any method of contraceptive and no pap smear was done before. Systemic Review Systemic review was unremarkable. She had no heart disease symptoms that can cause by hypertension, no headache, no nausea and vomiting, and also no blurring of vision. Past Medical and Surgical History This is her first admission to the hospital. There was no history of asthma, essential hypertension, diabetes mellitus and heart disease in this patient. He denied of having any surgical intervention before. Family History All of her siblings were in good health.

There was no history of twin or congenital abnormalities in her family. Both of her parents are still alive and in good health. Social And Personal History She live with her husband at Taman Jalan Abdullah. She is a student, and she denied smoking and consume alcohol. Her husband also a student, non smoker and not consume alcohol. Diet And Drug History There was no known drug and food allergies. Summary My patient, a 23 year old lady primigravida at 37/52 POA was admitted due to increased blood pressure during ante-natal check-up which was symptomatic. PHYSICAL EXAMINATION General Examination:

The patient was lying supine comfortably supported with one pillow. She was not in pain and not in respiratory distress. She is a medium built woman with clinically adequate nutritional and hydrational status. There was no gross deformity and skin colour changes in this patient. No attachment of iv branula on her limbs. Vital Signs: Blood pressure: 140/88 mmHg Pulse: 96 beats per minute. Regular rhythm and good volume. Temperature: 37oC Respiratory rate: 20 breaths per minute General Systemic Examination: Hand: The palm was warm and moist. The palmar creases was pink/not pale.

No palmar erythema. No peripheral cyanosis and clubbing. Head and Neck: No jaundice and the conjunctiva was pink. Oral hygiene was good, no central cyanosis and the tonsil was not injected. Lower Limb: There was no ankle edema. Per Abdomen Examination: The abdomen was distended with gravid uterus as evidence of linea nigra and striae gravidarum. The umbilicus was centrally located and flat. No dilated veins and surgical scar. Abdomen was soft and non-tender. Clinial fundus correspond to 38 weeks of gestation. Symphyseal-fundal height was 36 cm, which was corresponding to date.

It was a singleton baby. Longitudinal lie with cephalic presentation and fetal back was at mother's left. The fetal head was not engaged. Liquor was clinically adequate. Fetal heart sound was heard. Examination Of Other System i. Cardiovascular System – apex beat was located at the left 4th intercostal space, lateral to the mid-clavicular line. – Both heart sound was present, and no additional sound. ii. Respiratory System – Air entry was normal and equal both sided. No additional sound was present. iii. Central Nervous System – All motor and sensory was grossly intact.

Reflexes was normal. Summary: The patient, 23 year old primigravida at 37/52 POA, was examined and showed high blood pressure. All the reflexes were normal. Other system was normal.

____ Problem List: i. Primigravida ii. High blood pressure INVESTIGATION 1. Urine Analysis (24 Hr Urine Protein) To look any presence of protein in the urine to exclude pre-eclampsia and to assess the severity of the proteinuria quantitatively. Result : Negative finding. Interpretation : No proteinuria in this patient. 2. Full Blood Count

To assess haemoglobin and platelet count in this patient. Result : WBC9. 79×109/L Hb13. 2g/dL Plt270x109/L Interpretation : All parameters shows no abnormalities. 3. Renal Function Test To assess glomerular and tubular function of the kidney. Result : Sodium135 mmol/L Potassium4. 0 mmol/L Urea3. 0 mmol/L Interpretation : All parameters shows no abnormalities. 4. Liver Function Test To assess the level of aminotransferases and protein level especially albumin level Result : ALP134 ALT11 Bilirubin4 Total protein64 Albumin34 Interpretation : No abnormalities. 5. Ultrasound

To assess fetal condition, look for placenta pathology Result : BPD90. 6 mm36W5D FL64. 0mm37W6D HC328 mm37W2D EBW2. 40 – 2. 60 kg Placenta : Fundal grade III Interpretation : Normal Amniotic Fluid Index : To assess the amniotic fluid volume (poly-, normal, or oligohydramnios) Result : 12. 0 PROVISIONAL DIAGNOSIS Gestational Hypertension Evidence: • History – increased blood pressure more than 140/90 mmHg during last ANC – occur after gestational age more than 20 weeks – no proteinuria – no history of essential hypertension before • Physical examination & investigation high blood pressure (170/100 mmHg) MANAGEMENT Aim of management : 1. Control the hypertension 2. Monitor the fetus condition by doing fetal kick chart and cardiotocography 3. Don’t allowed postdate 4. A tablet of Aldalat (Nifedipine) 10 mg 3 times daily 5. Daily monitoring of blood pressure for every 4 hours 6. Deliver the baby by induction of labour if more than 35 POA 7. Plenty of bed rest DISCUSSION PREGNANCY-INDUCED HYPERTENSION Definition :- Increase in blood pressure after 20 weeks of gestation: • BP ? 140/90 mmHg • An ^ in systolic BP ? 30 mmHg over baseline An ^ in diastolic BP ? 15 mmHg over baseline BP measurement : Taken at least 6 hours apart with the patient at rest PIH can be divided into : • Pre-eclampsia – mild, severe • Gestational HPT • Eclampsia As we received a pregnant woman with a high blood pressure during ante-natal check-up, we should bare in mind that one of the possible causes of it is Pregnancy Induced Pregnancy (PIH). In this case, full history of the patient should be taken including full obstetric history, signs and symptoms of heart disease, liver disease and renal disease to exclude any possibility of ssential hypertension and also signs and symptoms of impending eclampsia. As in this patient, there was no history of essential hypertension or family history

of hypertension, and the high blood pressure was only discovered during ante-natal check-up at late pregnancy which is at 37 weeks POA. She was diagnosed to have Pregnancy Induced Hypertension which are mild in severity because the blood pressure was maintained around 170/100 mmHg on subsequent ante-natal visit. She was not diagnosed to have pre-eclampsia because no proteinuria.

Several investigation was done in this patient to look for any complication of pregnancy induced hypertension in the mother and the fetus. All parameters of the investigation show no abnormalities. It is because the hypertension is mild in severity and it occurs quite late in the pregnancy which make the complication difficult to arise. Complications of hypertension in pregnancy There are several complication that can occur in Pregnancy Induced Hypertension. Maternal :- • Cerebral haemorrhage • Heart failure • Hepatic necrosis Acute tubular necrosis of the kidney Placental :- • Placental insufficiency • Abruptio placenta • Oligohydramnios Fetus :- • Intrauterine growth retardation Drugs that can be used in pregnancy 1. Methyldopa (Aldomet) • It is a central adrenergic inhibitor • Action: v symphatetic activity, v total peripheral resistance • Adverse effect : lethargy, drowsiness • It is the safest drug in pregnancy 2. Labetolol (Trandet) • ? /? adrenergic blocker • Action : v total peripheral resistance, v cardiac output • Adverse effect : fetal bradycardia, IUGR Contra-indication : 1st degree heart block, severe asthma 3. Nifedipine (Adalet) • Calcium channel blocker • Action : inhibit calcium influx in vascular smooth muscle • Adverse effect : headache, reflux tachycardia, flushing 4. Hydralazine • Peripheral vasodilator • Action : direct action on vascular smooth muscle, v TPR • Adverse effect : headache,

sweating, nausea, palpitation • Indication of use : in hypertension crisis In the ward, the blood pressure of the patient was controlled by given her good bed rest and daily monitoring of blood pressure.

Other than that, the fetus condition monitored by doing cardiotocography (CTG). She also planned to have induction of labour. Indications for labour in this patient The indications for labour in this patient are :- i. She is at term ii. Delivery of the baby is the only treatment to bring down the blood pressure in pregnancy induced hypertension Risks of induction of labour 1. Failed induction – indicates that the attempt to induce labour has failed to result in full dilatation of the cervix. 2. Uterine hyperstimulation – which can cause fetal distress and uterine rupture