Case study of obstetric and gynaecology.

My patient Madam Suzanna 29years old gravida 4 para 2+1 electively admitted at 32 weeks of period of amenorrhea for expectant management of twin pregnancy with asymptomatic placenta previa type II posterior.

Currently patient is well and has no complain of pervaginal bleeding and fetal movement was good. She has no signs of labour like contraction, leaking liquor or passing show. Her blood pressure was stable and there was no complain of headache, blurred vission or fits. There is also no lethargy or pallor.

Her last normal menstrual period is on 10/8/10 and her estimated date of delivery is on 17/5/11. Currently she is at 35 weeks and 2 days of period of amenorrhea.

She has a background history of secondary subfertility for 7 years. She also has failed intrauterine insemination and intrauterine death in 2007.

Antenatal history :

It is a planned and wanted pregnancy. Urinary pregnancy test was done on 6th week of period of amenorrhea and the initial booking was done on 10th week period of amenorrhea. Dating scan was done on 7th week and it correspond to date. Placenta previa was detected when scan was done on 31 weeks period of amenorrhea.

Antenatal screening

Blood pressure : 105/65

Urine : no albumin detected

Hemoglobin : 12. 9 g/dl

Weight : 71-90g

Height : 161cm

Blood Group : 0 positive

VDRL/HIV/Hep B : negetive

MGTT(modified glucose tolerance test) done at 12 weeks of period of amenorrhea: 4. 2/6. 0(normal) and repeated on 32 weeks period of amenorrhea showed result 4. 1/5. 3(normal)

Latest scan was on 23/3/11 with the result of twin 1 and 2 at 32 weeks and 2 days of period of amenorrhea. Twin 1 was on cephalic presentation and twin 2 on tranverse presentation. Twin 1 weighs 1894g and twin 2 weighs 1886g. It is a monochorionic and diamniotic twin. It has only one palcenta. Liquor was adequate and other parameters correspond to date.

Past obstetric history:

In 2004 she delivered a baby girl by full term sponteneous vaginal delivery. The babies weight is 3. 3 kg. In 2003 she had complete miscarriage at 5 weeks of period of amenorrhea. In 2007 she had intrauterine death at 26 weeks of period of amenorrhea due to positive toxoplasmosis and cytomegalovirus positive. The babies weight was 980g.

Past gynaecological history:

She had a regular menstrual cycle. She attend age at 12 years old with a regular flow of 3 to 4 days every 1 month. She had no history of dysmenorrhea, menorrhagia, or intermenstrual bleeding. Last pap smear was done on 2010 and it was normal. For contraception, she was previously taking ocp but not really compliance.

Past medical history:

Nil

Past surgical history:

She had done laparoscopic and dye at 2008 and the result was right tubal block.

Family history:

Mother has athma, all other members in the family are fine.

Social history:

She is working as pembantu tabir at PPUKM. She is married for 7 years. Her husband is a instuctor for assistant course.

Relevant clinical examination

General examination

Patient looks well and lying comfortably with one pillow. She is communicative and alert. Her vital signs are as follows:

Blood pressure : 106/58

Pulse rate : 82 beats per minute

Temperature : 37 degree celcius

On peripheral examination there were no clubbing noted at both of her hands. No pallor and the capillary refill is 2 seconds. There were no palmar erythema noted. Both of her eyes conjunctiva is pink and no yellow discolouration of sclera.

Systemic examination

Abdominal examination

Upon inspection of the abdomen. The abdomen is distended by gravid uterus. There is cutaneous signs of pregnancy which are linea nigra and stria gravidarum. The umbilical is centrally located and flat. Otherwise the abdomen is normal. On palpation the uterus is not irritable and the abdomen is soft and nontender. The symphysio fundal height is 38 cm and it is larger than the date. There is two fetus , one in a cephalic presentation and the second twin in transverse presentation. Liquor was adequate.

Cardiovascular system examination

Radial pulse is 82 beats per minute and it is in good volume and regular rhythm. Apex beat is felt in 5th intercostal space in midclavicular line. Upon auscultation there is dual rhythm and no murmur heard.

Respiratory examination

Trechea is centrally located. There is no respiratory distress. Chest expansion is equal bilaterally. There is vesicular breath sound heard throughout the lungs.

Thyroid examination

Upon inspection of the neck there is no thyroid swelling. On palpation there is no throid swelling either and no cervical lymph nodes palpable.

Breast examination

Upon inspection the breast has everted nipple and hyperpigmented nipple. There is no skin changes noted. There is no mass felt at both of the breast. The axillary lymph node is not palpable.

Diagnosis and differential diagnosis

Provisional diagnosis:

Twin pregnancy complicated with placenta previa type II posterior.

Points for:

She is detected to have multiple pregnancy when she was doing antenatal follow up.

Her uterus is larger than date

There are multiple fetal poles can be palpated.

Upon latest scan there is two fetal poles detected

Ultrasound result showed monochorionic and diamniotic twins(MCDA) so it will lead to larger placental side and lead to placenta previa posterior type II

Ultrasound showed the placenta is at posterior and placental edge of 5mm.

Points against

There is no any pervaginal bleeding ar leaking. She is asymptomatic.

There is no any signs of anemia

There is no any serious maternal discomfort due to compression like shortness of breath.

There is no pregnancy induced hypertension that is common in pregnancy.

There is no any growth restriction.

Differential diagnosis

Any other differential diagnosis for anterpartum hemorrhage like abruptio placenta, vasa previa and local cervical causes

Abruptio placenta

Points for:

Multiple pregnancy can give pressure to placenta and cause it to seperate.

Points against:

It is a emergency condition.

My patient didnt develop any acute bleeding.

She had no history of trauma to abdomen

Vasa previa

Points for:

Multiple pregnancy

Points against

It is rare condition

My patient doesnt have pervaginal bleeding

Local causes like cervical polyps

There is no cervical polyps noted.

Relevant investigation with reasons

I would like to do

Full blood count

This is to see the hemoglobin level of the patient. Twin pregnancy can lead to anemia.

Serum glucose level

This is to see whether patient has hyperglycemia or not. Twin pregnancy can lead to gestational diabetes mellitus.

Urine full examination and microscopic examination

This is to see if there is any infection which may lead to threatened preterm labour.

Ultrasound scan

To see the fetal poles and their lie. To see if there is any abnormally in the twin and to see placental implantation site.

Investigation with result

1)Full blood count

Result

Units

flag

Normal range

White Cell Count

10. 4

X109/L

+

4. 0-10. 0

Red Cell Count

3. 89

X1012/L

—

4. 2-5. 4

Hemoglobin

11. 6

g/dL

—

12. 0-16. 0

Hematocrit

34. 1

%

—

39. 0-52. 0

Mean Cell Volume

87. 7

Fl

77. 0- 91. 0

MCH

29. 9

Pg

26. 0-32. 0

MCHC

34. 1

g/dL

32. 0-36. 0

RDW

15. 5

%

++

11. 3-14. 6

Mean Platelet Volume

9. 3

Fl

6. 3-10. 2

Platelet

184

X109/L

150-400

Neutrophils

6. 8

X109/L

2. 0-7. 0

Eosinophils

0. 1

X109/L

0. 02-0. 5

Basophils

0. 0

X109/L

—

0. 0-0. 1

Lymphocytes

2. 8

X109/L

1. 0-3. 0

Monocytes

0. 6

X109/L

0. 2-1. 0

Nucleated Red Blood Cells

0

X109/L

0. 0-0. 0

Impression : my patient has low red cell count and hematocrit value. It suggest anemia which is common in twin pregnancy. She also has elevation of white cell count which is normal in

physiological changes in pregnancy.

2) serum glucose

Flag test

Result

Unit

range

2HPP glucose

5. 3

Mmol/L

4. 0-7. 8

There is no elevation of glucose.

3)UFEME(urinary full examination and microscopic examination)

Flag test

Result

Range

Urine colour

Yellow

Urine clarity

Clear

Specific gravity

1. 015

1. 015-1. 025

Urine PH

8

5-8

Leucocyte

25u/l

Urine nitrate

Neg

Urine protein

Neg

Urine glucose

Norm

Urine ketone

Neg

Urine urobilinogen

Nor

Urine billirubin

Neg

Urine blood

Neg

Impression: there is increased in leucocytes. It may indicate infection.

Ultrasound scan. Done at 32 weeks of POA

Twin 1is 32 plus 2 days of gestation with cephalic presentation . liquor was 4. 7. Twin 2 is in 32 plus two days of POA and in transverse position with liquor of 3. 9. the placenta is placenta previa type II posterior. First twin weighs 1894g and second twin weighs 1886g. other parameters corresponds to date.

Identify the problems in terms of priority

1) Monochorionic diamniotic twin pregnancy. This may lead to preterm delivery.

2) Placenta previa type II posterior which may cause antepartum hemorrhage(APH) and postpartum hemorrhage(PPH).

3) Admitted for expectant management. Twin pregnancy also can cause complication like gestational diabetes mellitus(GDM), pregnancy induced hypertension(PIH), anemia and hyperemesis gravidarum.

Immediate and subsequent management

Admitt the patient to ward. This twin pregnancy is considered as a high risk and yellow tagged (needing specialist referral either at hospital or maternal health care). During antenatal follow up complication of twin pregnancy should be noted. Abdominal examination need to done to detect any polyhydramnios and malpresentation. Blood pressure is taken to rule out pregnancy induced hypertension. Urine proteinuria is checked also. However madam suzanna didn’t develop any hypetension, her Bp was normal. Secondly investigation is carried out. Full blood count showed reduced amount of red cell count indicating she has anemia. She was given hematinics on daily basis. As a prophylactic to pregnancy induced

hypertension aspirin is given 75mg on daily basis and it stopped on 34 weeks of POA. Modified glucose tolerance test at 12 weeks period of amenorrhea showed result of 4. 2/6. 0(normal) and it was repeated at 32 weeks of POA showed result of 4. 1/5. 3. Her fetal kick chart is monitored. She is informed to tell if got any pervaginal bleeding. She is asked to take complete bed rest. Her observation is continued. She is planned to do elective caesarean section on 20/4/11 in 36 weeks and 3 days as planned.

Critical appraisal(discussion)

Twin pregnancy may arise from monozygotic or dizygotic. Monozygotic is a result of fussion of one ovum with sperm and splitting into two. Dizygotic twins are a result from fertilization of more than 1 oocyte. Usually dizygotic twins has own amniotic and placenta. But the number of placenta and amniotic sac depends on stage of splitting for monozygotic. As for this patient she had carrying monozygotic twins and her monozygotic twins has monochorionic and diamniotic sac this is because spliiting of embryonic mass occur after 3 days.

The risk factors of getting twin pregnancy include positive family history, increased maternal age, increased parity usually after 4 pregnancy, and assisted conception. We can diagnose twin pregnancy by doing clinical examination. In clinical examination the uterus will be larger than date. There will two fetal poles can be palpated and when listening to fetal heart there will be two heart beats with a different rates heard. Signs and symptoms of complication of multiple pregnancy might as well be noted like anemia.

The investigation include ultrasound done early as 7 weeks which will show multiple gestational sac. But the main thing that we must be worried is the complication that may arise from twin pregnancy. There are fetal complication and maternal complication for fetal complication it may give rise to miscarriage, preterm labour, chromosomal abnormalities, and twin-twin transfusion syndrome. So for madam suzanna she has been admitted to wad early because we are afraid of getting preterm labour. So she is monitored at wad. If at all she develops contraction and any leaking liquor, we should manage her. We should give her antibiotics to prevent infection and give tocolysis to ease the contraction pain. Dexamethasone also given to provide lung maturity.

The maternal complication include accentuated signs of pregnancy like hyperemesis gravidarum, pregnancy induced hypertension (PIH), gestational diabetic mellitus (GDM) , anemia, and placenta previa that may lead to anterpartum hemorrhage(APH) and post partum hemorrhage(PPH). As for my patient madam suzanna she has anemia. Anemia is caused by increased plasma volume expansion and increased feto placental demands of ferum and folate. So as a management we have given her hematinics tablet in daily basis. Another serious complication that she had developed are placenta previa. Placenta previa may arise from large placental site. As for madam Suzanna she has monochorionicity(1 placenta) so the placenta is large causes placenta previa.

As above my patient has placenta previa minor type II posterior. It is common around 32 weeks. The confirmation is done by ultrasound. It can cause anterpartum hemorrhage(APH) which is defined as bleeding from

genital tract from period of viability which is from 22 weeks onwards. APH is usually caused by placenta previa, abruption placenta, vasa previa and local causes like cervical polyps.

Placenta previa is low implantation of the placenta in the uterus. Placenta previa is divided into four types. Type 1 is where the is 5cm from internal os, type II is where placenta reaches internal os but doesn’t cover it, type III is where placenta covers the os but not centrally and finally type IV where the placenta covers the os centrally. Type I and II is minor placenta previa, whereby type III and IV is major. To manage patient with placenta previa we must admit the patient and monitor the vital signs. We also must do abdominal examination . But vaginal examination should not be performed unless placenta previa is excluded. Then we must make sure there is enough intravenous excess. The blood should be sent for full blood count, coagulation profile and group cross match. Incase the patient develop acute heavy bleeding and also maternal collapse then red alert team shuold be activated immediately. Otherwise if the patient is asymptomatic. Conservative management with Mc Cafee regime also must be done. Mc Cafee regime include admission to the ward and until delivery, close observation for bleeding, and there must be availability of atleast 2 units of blood at all times, and finally caesarean section is performed when fetal reached maturity. Caesarean section must be performed to major placenta previa and minor placenta previa that is situated posteriorly like in this patient. Usually minor anterior placenta previa can be delivered vaginally and minor placenta previa posterior cannot because in posteriorly placed

placenta previa, the head may compress the placenta when it descending down and this may compromise fetal circulation.

The complication of placenta previa include post partum hemorrhage (PPH) and recurrent placenta previa. PPH is divided into two which are primary and secondary. Primary is defined as bleeding within 24 hours following delivery and secondary is defined as bleeding after 24 of deliver. PPH is caused by uterine atony, genital tract trauma, retained placenta, and any bleeding disorder. So as for this patient she has placenta previa that may lead to uterine atony. The initial management of post partum hemorrhage is to give oxygenation then restore the circulation by infusing two large bore branulla. Blood cross match is taken and 2 units of blood is kept standby and drug therapy with oxytocin is given.

So basically management of twin pregnancy in anterpartum include blood pressure monitoring because twin pregnancy has high risk of getting pregnancy induced hypetension. Modified glucose tolerance test(MGTT) to detect any gestational diabetes mellitus is done. We also must ask the patient to do fetal kick chart and monitor for any signs of preterm delivery like leaking liquor and contraction pain because overdistended uterus may cause premature rupture of membrane and lead to preterm delivery. Hematinics and folate should be given to prevent anemia.

Professional component-reflection of the case

Communication issue

Communication is very important between doctors and patient. Without a proper communication a doctor can´t get all the information needed to come

for an diagnosis of a patient. Good approach in the beginning itself will show a our professionalism. It is our responsibility to build a good rapport with patient. This will make them to have a trust on us and they will give all the information that we need. I approached my patient with a smile and a good morning wish. I was a bit afraid that she might not let me to clerk her because she looked a bit stressful. But as I bravely approached her, she was nice. After introducing my name I asked her that I wanted to ask some question on why she is admitted. Madam Suzanna was very polite and she let me to sit beside her in a chair. Then I went on asking questions in a open ended way. She answered my question very nicely and I managed to finish my history taking and physical examination on time. It took me about 40 minutes. Madam Suzanna was co operative and willing to spend time with me if I got any more futher questions to ask.

Spiritual issue

My patient Madam Suzanna was very spiritual. Even though she has been in the wad for very long time she is very calm. She believes that good will help her to deliver her twins without any complication. She also has a very strong family support and they also pray for her. As for me a person should have spiritual element in their life. By being spiritual it helps me to overcome any obstacles easily. I have a calm mind and soul.

Ethical issue

As a good doctor we should have a good respect on our patient. We should treat them appropriately. We should apply patient well fare in every move we make. Asking for the patient concern is very important. Especially my

patient she is going to have elective cesarean section. So it is important to consult her on the complication for the short time and long time. We should explain to her the importance of doing that procedure, if she still denies we should not force them. With a good ethics we can manage the patient very well. We must take care their privacy also.

Professional judgement

Decision making skills is very important in medicine. Because it is a life and death matter. We must carry out all the important investigation and discuss with our specialist to come for an diagnosis. We must apply multidisciplinary role in managing the patient. We must think out of box and manage the patient as a whole. As for my patient she is well taken care of my specialists and she had gotten the best treatment.

Life long learning&Critical appraisal(what I have learnt from this case)

First of all I would like to thank Dr Nasir for giving me a opportunity for doing this case write up. I have learnt many things from this case write up. First of all I learnt that this case is not like an ordinary pregnancy. It is twin pregnancy, so twin pregnancy has a greater risk of developing gestational diabetes mellitus, pregnancy induced hypertension anemia and so on. So I learnt that I must manage the patient as a whole. I must give her iron tablet to prevent anemia and give her prophylactic aspirin to prevent hypertension and so on. I also learnt that twin pregnancy has a higher risk or developing preterm delivery. So I must be alert of any signs of leaking liquor or any contraction pain. Moreover my patient is having a complication of a twin

pregnancy which are placenta previa type II posterior. So she can′t go through a normal delivery. She must do cesarean section.

I have learnt that placenta previa can cause anterpartum hemorrhage and also postpartum hemorrhage. I have also learnt how to manage the patient if she develop any of this complications as I have discussed in the discussion above. I have a complete knowledge on what is twin pregnancy all about and the complications that may arise from twin pregnancy.