Case summary and examination of obstetrics posting

Madam NTR is a 34 years old Malay lady with gravida 4 and parity 3, currently at 37 weeks of gestations. She was admitted on 21st Nov 2010 at gestational age of 30 weeks and 1 day, due to referral from Health Clinic Sendayan in view of placenta previa based on ultrasound findings during a routine antenatal visit. Her estimated date of delivery was on 20th Jan 2011. She was asymptomatic with no complaints of per vaginal bleeding, contraction pain, leaking liquor or show. Fetal movements were felt and were not reduced. She has no history of placenta previa in her previous pregnancies.

The first day of her last normal menstrual period was on 15th Apr 2010. This was an unexpected pregnancy but both her and her husband wanted it. She suspected she was pregnant when she missed her menses for 4 weeks. She confirmed her pregnancy after urine pregnancy test done in a private clinic yielded positive result. Booking was done in Maternal and Child Health Clinic Gadong at 16 weeks of gestation and the dating scan at 16 weeks revealed parameters corresponding to date. However, placenta was noted to be low lying during that scan. Throughout her routine antenatal visits, she was normotensive, not anaemic and did not have diabetes mellitus. HIV and VDRL test were negative. Her blood group type is O Rh D positive.

This is her fourth pregnancy. Her third pregnancy was in the year of 2007. She delivered a full term baby boy with birth weight of 2. 6 kg via caesarean delivery due to breech presentation in Hospital Tuanku Jaafar Seremban. She delivered her first two children who are both males in the year of 2004 and 2005 via spontaneous vaginal delivery, with birth weight of 4. 26kg and 2. 6kg respectively. There was no history of shoulder dystocia. All her children

were born alive and well. Antenatal, natal and postnatal for all previous pregnancies were uneventful.

She attained menarche at the age of 12. It is regular at 28 to 30 days cycle with duration of 5 to 7 days. There was neither dysmenorrhea nor menorrhagia. She practised coitus interuptus as contraceptive measure. She never had any PAP smear done previously.

Past surgical, medical and drug history were unremarkable. Family history was unremarkable. She and her husband are married for 7 years. They are staying together with their three children in Gadong Jaya Village. She is a housewife. She neither smokes nor drinks alcohol. On the other hand, her husband works as a construction worker. He is a smoker but not alcoholic. Family income is approximately RM2000 per month which is barely adequate for their living.

Physical examination:

Madam NTR was alert, conscious and communicative. She was not in pain or respiratory distress. Her height and weight are 165cm and 76kg respectively. Her blood pressure was 110/80 mmHg; pulse rate was 86 beats per minute of regular rhythm and strong volume; temperature was 37° C; respiratory rate was 19 breaths per minute. All vital signs were within normal range. Upon general examination, there was no conjunctival pallor, sclera jaundice, palmar erythema or peripheral cyanosis. Thyroid glands were not palpable and breast examination was unremarkable. There was bilateral pedal edema up to mid-shin. Cardiopulmonary examination was unremarkable.

Upon examination of the abdomen, it was distended with a gravid uterus. Linea nigra and striae gravidarum were visible. There was a tranverse scar, measuring 12cm, located above pubic symphysis. Distension appeared to be corresponding to gestational age. The umbilicus was flattened. On light palpation, the abdomen was soft and non-tender. Uterus was not irritable. Symphysiofundal height was 38 cm which was corresponding to gestational age. It was a singleton pregnancy with transverse lie and cephalic presentation. The liquor was adequate. Estimated fetal weight was 3. 0-3. 2kg. Fetal heart sound was 160 beats per minute.

Investigations

Full Blood Count revealed normal haemoglobin level (10. 9g/dL).

Transabdominal Sonography(TAS) revealed transverse lie fetus with the presence of fetal activity, estimated fetal weight of 3. 19kg at 37 weeks of gestation, anterior placenta previa type 3 (placenta previa major) with evidence of placenta accreta at one area over bladder base. The images also demonstrated placental lacunae, gross increase in vascularity of cervix which is suggestive of placenta accreta.

Diagnosis

Anterior placenta previa type 3 with possible placenta accreta.

Management

Upon admission, Madam NTR’s vital signs were taken. Cannula was inserted and blood was taken for full blood count investigation and blood group cross-matching. Madam NTR was also given the explanation to keep her in ward

until delivery and the condition of her pregnancy. She was encouraged to rest in bed and decrease activity level to avoid bleeding. Ultrasound was performed to confirm the diagnosis of placenta previa.

She was then monitored for any contractions or bleeding. Madam NTR's pad chart, fetal kick chart and labour pregnancy chart were strictly monitored. Fetal heart rate was assessed 4 hourly with Daptone. Cardiotocography was done regularly and it was normal. She was given a course of IM dexamethasone 12mg BD of 1 day duration at 30 weeks of gestation. Full blood count investigation was performed once weekly and transabdominal sonography was carried out once in every 2 weeks throughout admission. Anemia should be corrected if present.

Madam NTR was also prescribed ferrous fumarate, folic acid, vitamin B complex as well as ascorbic acid. She was eventually planned for an elective caesarean delivery on 5th Jan 2011 at 37 weeks of gestational age. Prior to that, she was counseled about risk of haemorrhage and possibility of hysterectomy to be done during operation as well as option of conservative management etc. Written informed consent was taken from both her husband and her.

Progression

Throughout the admission, she was comfortable and her vital signs were all normal. She had no any episodes of vaginal bleed, leaking liquor, show, uterine contraction and pain. She was not anaemic as evidenced by normal values of her haemoglobin levels. The most recent haemoglobin value was

10. 9g/dl. Fetal well-being was assured as evidenced by normal CTG results. She and her fetus remained stable until the scheduled operation date.

A day prior to that, she was kept nil by mouth. Packed cell blood was ready for transfusion if needed. After delivery of the fetus, manual removal of the placenta was done and placenta accreta was found to be at the anterior bed of lower segment of the uterus. She developed a massive uterine haemorrhage and a hysterectomy was performed. 3 units of packed cells (1 litre in total) were transfused intraoperatively. The operation lasted for 1 hour and 15 minutes.

She delivered a baby boy weighs 3. 2kg with Apgar score of 6 at first minute and 9 at fifth minute of life. After being assessed by paediatrician, he was discharged to the mother. Estimated blood loss was 2. 8 litres. Explanation about intraoperative findings and the decision of attending doctor to proceed to hysterectomy was given to Madam NTR. Postoperatively, she remained hemodynamically stable. Post operative haemoglobin level was 12g/dl. She was able to ambulate and tolerate orally on third day after operation despite minimal pain over operation site. She did not complain of shortness of breath, palpitation, chest pain or calf pain.

Baby was pink, active and well with no jaundice. Breastfeeding was established. Both of the mother and baby were discharged on 7th Jan 2011and subsequent follow-up was scheduled to be 2 months later. She should be arranged for psychological review and management as termination of fertility can sometimes cause devastating psychological impact to women.

Discussion

What other alternatives that Madam NTR has other than hysterectomy in the case of placenta accreta? Is hysterectomy absolutely indicated in Madam NTR?

Mainstay traditional management has centred upon hysterectomy which has a high complication rate and terminates fertility of a woman. It can also cause devastating psychological consequences. While in vast majority of cases hysterectomy will remain appropriate, there are other management options available involving conservative approaches. The main nonsurgical conservative management would be to leave the placenta undisturbed in situ for it to be resorbed or to be passed spontaneously. It is expected that bleeding will remain minimal with this approach. This enables fertility to be preserved even though leaving the placenta in situ has implications for infection and recurrence.

LoÃ¯c Sentilhes et al.(1) concludes that successful conservative management for placenta accreta does not compromise the patients' subsequent fertility or obstetrical outcome but there is a high risk that placenta accreta may recur during future pregnancies. Florence Bretelle et al.(2) conducted a retrospective study in which 50 cases of placenta accreta were studied and 26 patients (52%) were treated conservatively. 21 of them (80. 7%) did not undergo hysterectomy and 3 women had successful pregnancy during follow-up. This further proves that treated patient with placenta accreta selectively with conservative approach enables fertility to be preserved without increasing morbidity.

However, conservative approach is usually considered only when bleeding is minimal. In this case of Madam NTR, there was severe haemorrhage encountered after delivery of fetus. Conservative management such as leaving the placenta in situ will lead to severe postpartum hemorrhage or even maternal death. Uterine compression suturing to stop the bleeding was not able to be performed as her uterus was too fragile to hold the sutures. Therefore, hysterectomy is absolutely indicated in the case of Madam NTR for her safety. This is her fourth pregnancy; therefore termination of fertility is not a major concern in her as discussed previously prior to obtaining her consent.

As Madam NTR was planned for a high risk surgery with possibility of hysterectomy, counseling and obtaining written informed consent prior to surgery play a vital role. After being counseled, Madam NTR stated that she had little understanding about her situation and the surgery but not to the full understanding due to inability to fully comprehend medical terminologies used. The question here would be: " Has the attending doctor done his duties well enough and is patient's autonomy protected in this context?"

Informed consent is the core principle of modern medical practice. The primary aim of the consent process is to protect patient's autonomy. Patients have the right to refuse medical care, even when it means they will die. This surgery is associated with high complication rate, termination of fertility and devastating psychological consequences to patient. Therefore, educating and informing her about her healthcare options, advantages and disadvantages associated with recommended management as well as other alternatives are very crucial.

The point is not merely to disclose information, but to ensure patient's comprehension of relevant information. Unfortunately, very often that doctor are disclosing information presuming that patients with different level of maturity, education level, cultural background and native language will be able to comprehend. On top of that, doctors are so used to medical terminologies and it is often found difficult to disclose medical information in layman's terminologies. Majority of patients whom I encounter were not aggressive in seeking opportunities to raise questions to attending doctors, especially during ward round whereby patient will be surrounded by specialist accompanied by medical officers, housemen and medical students. All these further jeopardize patient's autonomy to exercise personal choice with total comprehension of relevant medical issues.

In the case of Madam NTR, she and her husband should first of all be told what a placenta is before explaining to them about placenta praevia. Subsequently, attending doctor should explain to her the reason vaginal delivery was not able to be carried out as the placenta covers the entrance to the womb (cervix) entirely, which is known as major placenta praevia. Therefore, caesarean delivery is absolutely indicated and it will be conducted by experienced obstetrician and anaesthetist on duty. If an emergency arises, a consultant will be present.

Risk of severe bleeding from placenta praevia which can put the life of the mother and baby in danger should be emphasized; therefore explaining the purpose of blood group cross- matching for blood transfusion. She should also be informed that rarely, placenta praevia may be complicated by a problem known as placenta accreta, when the placenta is abnormally

attached to the womb, making separation at the time of birth difficult. Most of the time, it will pass out spontaneously. However, if the bleeding continues and cannot be controlled, removing the womb has to be done to control the bleeding after consideration of conservative approaches such as leaving it in situ with possibility of recurrence or infection fails.

She has to be told to fast prior to operation. Choices of analgesia should be discussed with anesthesiologist in relation to risks and advantages for each option. Lastly and most importantly is to assure her that the healthcare team will recommend the best way for both her and her baby and at the same time, she has the right to be fully informed about her health care and to share in making decisions about it.

Under the law, the doctor has a duty of medical care to give ‘ adequate’ information about the proposed medical treatment. The breach of informed consent in today’s legal setting is more commonly interpreted as negligence when the doctor has not disclosed the risk of procedure and when the risk occurs, causing harm to patient. In the English case of Wells v Surrey Area Health Authority (3), a 36-year-old woman with 2 children, was advised to proceed to caesarean delivery after prolonged labour. She was in exhausted state when she was suggested to be sterilized during the surgery and consent was signed and sterilization was done. When she recovered, she complained that consent was invalid as it was taken when she was mentally confused. She sued the doctor for assault and battery for operation was done without consent as well as for negligence as information regarding sterilization was not given at all.

In conclusion, informed consent should be practiced in the correct way, especially in obstetrics and gynaecology, an area with high risk of medico-legal perspectives, to provide best treatment and management to patient and fetus as well as protecting doctors from being sued for negligence.