Case Studies on Obstetrics and Gynecology

Student's Name

Institutional Affiliations

Date

GYNECOLOGY CASE: ENDOMETRIOSIS

Overview

Sylvia, a 24 years old lady currently in her post graduate studies is under evaluation for endometriosis. She presented in the outpatient complaints of dysmenorrhea, dyschezia, irregular menstrual cycle, inguinal pain, constipation, and increased frequency micturition for the last three days. The outpatient Registrar referred the Lillian for gynecological review.

History of Presenting Complains

The symptoms have been recurring for the last five months, which she says started as a minor issue but now increasing in severity with every episode. The episodes occurred two to three days before her menses and faded away gradually after the menses. She claims the symptoms have increased anxiety during her menses since the symptoms at times have contributed to her missing her daily chores. She claimed her menses flow was normal, had a mild headache at times, indicated a significant loss of weight (3kg) in the last four months, no fevers, no blood stained stools or urine, no dysuria, and no dyspareunia on normal days. In addition, she has not reported having abnormal vaginal discharge or groin itchiness.

Menstrual History

Her menarche occurred while she was 13 years old. She has had a regular cycle until the last six months, which have been irregular taking between 21 days and 28 days. She noted the flow was normal changing the pads three times in the first day, twice the second day, third, and fourth days. She sometimes had prolonged flow taking up to five days. She has no notable intermenstrual bleeding.

Obstetric History

Lillian has no children, and with no history of abortions

Gynecological History

She is single but sexually active. She conducts breast self-examination sometimes immediately after her menses, and she has never experienced any abnormality. Her latest pap smear was done four months ago results indicate no abnormalities. Her last menstrual period 22 days ago; date 25/9/15. She rarely goes for a gynecological review, mostly goes to the hospital when sick. No history of dyspareunia, post coital bleeding, or fibroids. She used to use Levonorgestrel Norplant implants for family planning, but stopped four months ago following the episodes of her current symptoms. She has not undergone any gynecological surgery up-to-date.

Past Medical and Surgical History

She reported having episodes of a sore throat and common cold, with no major medical conditions such as hypertension, diabetes, tuberculosis, pneumonia, or cancer. She had a surgical operation at 14 for appendicitis. Lillian has no known allergies to medications or food.

Drug History

She reports to have been using over-the-counter analgesics (Ibuprofen, Codeine, or Diclofenac tablets) to manage her problem when it started, but was not getting substantial results. After review by the gynecologist, she was put on Depo-Provera 150mg intramuscular injection for three months, ibuprofen 400mg tablets orally PRN.

Family History

Lillian is the last born in a family of three siblings. All siblings and parents are alive and well. Her mother (age 54 years) was diagnosed with ovarian cysts at the age of 35 years, which was surgically corrected. Her maternal grandmother had breast cancer diagnosed at age 47 years which resulted to a double mastectomy. Her father – currently 61 years - is a known type 2 diabetes patient that he has been managing for the last seven years.

Social History

No history of cigarette smoking, alcohol taking, and substance abuse. She works at a part-time sales agent at a real estate firm, and currently pursuing her Master's program. She leaves alone, has good friends and family support, and attends church services of Sundays. She rarely exercises, but tries to maintain a healthy balance diet.

Systems Review

No respiratory, circulatory, and central nervous system. She reported notable episodes of constipation, dyschezia, and sometimes bloating. There is increased frequency of micturition during the condition's episode, but no urinary incontinent, urinary retention, dysuria, or bloody urine. She reports of dysmenorrhea, no groin rash, and no dyspareunia. Sometimes during the painful episodes she experiences thigh aches, but with a full range of motion.

Presentation of the Examination

General Appearance

She looks frowny and is irritable. Pain score is 6/10, temperature 36.4^{o}C, respirations 22breaths/ minute, pulse 78 beats/minute and blood pressure of 125/75 mmHG. No edema,

capillary refill less than 2 seconds, and mucous membrane (sclera, and inner lining of the lips of the mouth) and palm color pink indicating good vascularization.

Abdominal Examination

She has a flat abdomen, no bloating. On auscultation, bowel sounds are present. On palpation, guarding noticed on the lower abdomen with pelvic tenderness, negative renal punch, negative Murphy's test, and no rebound tenderness.

Breast Examination

Looking normal and not engorged on inspection, no palpable masses, nipple sensitive to touch, and claims of tingling sensation.

Case Discussion

Endometriosis describes the uterine endometrial tissue found outside the uterus. The endometrium responds to the hormonal changes consistent with the uterine behavior on reproductive systems. The condition is diagnosed through details history taking, physical examinations, and with MRI diagnostic evaluation. Through explorative history taking, thorough physical examination, lab tests (urinalysis and pregnancy test), and ultrasound scan, Lillian was found to have endometriosis. Her pain came before menses, disappeared after menses, and poor management of the pain using standard non-steroidal anti-inflammatory drugs (NSAIDs). Lillian's case exacerbated following her delayed check-up. Early diagnosis is vital in endometriosis management. Based on the nature of her signs, symptoms, and physical examination the endometrium was hypothesized to be mostly implanted in the pelvic region, and

some traces in the thighs. Every month the endometrium in these sections grew every month enhancing the severity of the symptoms.

Management options available for Lillian - based on her age and reproductive options - included the use of medications to relieve pain, slow endometriosis tissue growth, and prevent disease return. These medications involved using NSAIDs, combined oral contraceptives, progestogens, or Gonadotropin-releasing hormone (GnRH) analogs. Conservative surgical corrections were also considered as secondary interventions. After a discussion with the client, she was put on NSAIDs (ibuprofen 400mg PRN) and a three-month dose of intramuscular 150 mg of Depo-Provera 150 mg IM.

Possible differential diagnosis for endometriosis includes;

a. Appendicitis, which was ruled out by the negative rebound tenderness,
b. Ectopic pregnancy ruled out by last menstrual period date and pregnancy tests,
c. Pelvic inflammatory disease ruled out by normal temperatures, and normal urinalysis findings,
d. Ovarian cyst ruled out by a physical examination and ultrasound scanning
e. Gonorrhea ruled out by normal urinalysis result, no abnormality on external reproductive organs.

The initiated management was to be followed monthly for evaluation of effectiveness. Lillian's management is still under evaluation.

OBSTETRIC CASE STUDY 1: HYPEREMESIS GRAVIDARUM

Antenatal History

Lucy a 31 years old lady was brought to the hospital with complaints of nausea, excessive vomiting, dehydration, and general body weakness at a gestational of 6 weeks 4days (by scan). Her blood pressure was 98/61 mmHg; heart beat 90 beat/minute regular but weak, and temperature of 37.9ºC.

History of Present Pregnancy

Lucy used injectable Depo-Provera for over seven years as her preferred contraceptive method. After getting married two and a half year ago, she stopped using the contraceptives in preparation for getting a baby. The cessation of Depo-Provera was followed by a period of irregular periods sometimes missing the period or other times receiving very little flow that she used just one pad in a period lasting one day. As a result, she could not tell her exert last menstrual period (LMP), but figure it was 7 - 6 weeks before. Her pregnancy was confirmed in the hospital with an ultrasound scanning, and the gestation age was six weeks four days; thus, LMP was 28/ 11 /2014. She started having nausea approximately five weeks earlier, but vomiting started two weeks ago, which has accelerated in the last one week, which she attributed to environmental changes following a trip to Africa. Her menarche was at the age 14 years. Her expected date of delivery was 04/09/2015

She was hospitalized for three days rehydration and electrolyte correction following her diagnosis of hyperemesis gravidarum. Her actual antenatal visit started at 12 weeks, and her baseline examinations were done. The hemoglobin level was at 14, urinalysis normal, TORCH findings were normal, and VDRL findings also normal. Her blood group is O and Rhesus factor

was positive. The rest of her first trimester she experienced nausea, loss of appetite, and occasional vomiting with no further complication, but she was under close monitoring.

During her second trimester antenatal visit at gestational age 26 weeks three days, her vitals were normal (blood pressure 125/80 mmHg, pulse rate 76 beats per minute, respirations 18 breaths/minute, and temperature 36.6^{o}C). The fetus presentation was cephalic; position - left occipital anterior; lie - longitudinal, and fundal height of 26 weeks. However, complaints of nausea, anorexia, and occasional vomiting were also noted.

In her third trimester, nausea and vomiting were occasional, but she had managed to rehydrate herself and reduce cases of dehydration or electrolyte imbalance.

The past Obstetric History

This is Lucy's first pregnancy (primigravida), and she has no history of miscarriages (para 0+0).

Past Gynecological History

Lucy is married, used Depo-Provera Injection as her family planning method for seven years before stopping roughly two and a half years before this pregnancy. Have no history of sexually transmitted disease, no post-coital bleeding, and no dyspareunia. The last Pap smear was done 2014 February. She understands the importance of self-breast examination, which she often does. She received Cervarix vaccine at the age of nine years.

Past Medical and Surgical History

Lucy was hospitalized for four days following a case of pneumonia at age three years. She has no history of surgical operations.

Drug History and Allergies

She occasionally used over-the-counter medication for pain management. She was prescribed promethazine 25mg daily dose for three days following an episode of vomiting or excessive nausea.

Family History

Her mom and dad divorced when she was eleven years. She has a younger brother. Both parents and the brother are alive and well.

Social History

She is an elementary teacher in a local school. She used to smoke and drink alcohol, which she stopped six years age. She has good family and friends support. She lives with her husband. She often exercises while playing with children at school during PE time.

Systemic Review

The circulatory system is compromised by body fluid and electrolyte imbalance. The patient feels weak due to reduced energy secondary to cell starvation due to ineffective feeding pattern caused by nausea and vomiting. The body temperature is high due to poor temperature regulation mechanism caused by dehydration.

Examination at Gestation 38 weeks

General

Lucy looked weak, dehydrated, and sickly. Her abdomen was slightly less for term temperature is slightly elevated at (37.7ºC), blood pressure of 115/85 mmHg, pulse rate 88b/min. She reported having mild contractions but reported early to avoid complications.

Abdominal

The abdomen is globular, and the fundal height appear small for her gestation. Striae gravidarum present and linear nigra also notices, no visible scars, and no masses. On auscultation bowel sounds are present; the fetal heart rate is 136beats/minute, clear and regular. The fetal presentation is cephalic, lie - longitudinal, position - left occipital anterior, and head engagement two parts in.

Summary of Examination

He reported having vomited four times in the last two days. She is weak and with mild dehydrated from vomiting. The fetal condition is okay with no signs of fetal distress, but signs of maternal distress and exhaustion.

Case Discussion

Lucy a primigravida was admitted for observation after complaining of lower abdominal pain radiated to the back. She was rehydrated using normal saline and 10% intravenous glucose solution. For her nausea, she was injected metoclopramide 10 mg stat. Her active phase of labor set in six hours after admission with regular, coordinated contractions increasing in strength, frequency, and duration.

A Bishop Score was conducted 10 hours following admission, and her score was 9, which justified the go-ahead for induction of labor done by artificial rupture of membranes. The

maternal vital signs were observed hourly and vaginal examination done 4houly. Fetal observations were monitored as per the partoghraph guidelines. The readings were charted in a partograph for enhanced monitoring and interpretation of labor progress. She continued to have the good progress of labor. There was no indication of oxygenation, but rehydration continued throughout the labor process. The lasted for approximately 5 hours, which the client was on epidural analgesia to relief her from contraction pains; thus, reduce maternal exhaustion, reduce anxiety, and enhance relaxation.

Labour continued following the expected course and to the right of the alert line. Any indications of labor course approaching the action line would have indicated complicated spontaneous vertex delivery; thus, need for either emergency cesarean section or instrumental delivery. Luckily, Lucy's labor progressed successfully.

The second stage took 48 minutes. The client was advised to push, and having saved her energy during the first stage she was effective in pushing. Every contraction was followed by active pushing with the mother holding feet, bending forward, and pushing using her abdominal muscles. A progress of over 2 hours would have indicated a problem with the progress of the labor necessitating vacuum delivery. The management involved encouraging the mother to push with every contraction and urge to push and flexing the fetal head. After crowning, and restitution, the head was grasp by both hand, anterior shoulder delivered and a live female infant was delivered.

The third stage took 7 minutes. Immediately after the baby was delivered, syntometrine 1cc was injected intramuscularly into the right outer quadrant of the thigh to enhance the third stage of labor and reduce risks of postpartum delivery. Other approaches available include the

use of syntocinon, especially for hypertensive patients, or traditional management that does not involve medication hence associated with high risk of postpartum hemorrhage and prolonged third stage of labor.

Estimated blood loss was 100ml. A loss of over 500mls would have indicated postpartum hemorrhage. The placenta was expelled completely with no missing lobes. It had no infarcts, which would have suggested compromised fetal circulation. There no active bleeding per vagina, which was packed with pads for bleeding monitoring. The mother was cleaned and allowed to relax to await her motherly course.

OBSTETRICS CASE STUDY 2: GESTATIONAL DIABETES

Antenatal History

This is a 34 years old lady with her third pregnancy gestation age 37 weeks three days. She is a Rhesus positive, and with fasting blood sugars of over 120 mg/dL.

History of Present Pregnancy

Her last menstrual period was on 12/11/2014, which means her expected date of delivery is 19/8/2015. She has been having normal cycles regular every 28 days and periods lasting three days with normal flow. She has no history of dysmenorrhea from her first delivery. No history of sexually transmitted diseases, no history of spotting during pregnancy. However, she reported having white, thick discharge at gestation age 26 weeks. Her menarche was at age 14 years old.

The first trimester was characterized with mild episodes of nausea, loss of appetite, and with few episodes of vomiting, especially the first five weeks. This pregnancy was planned and with a history of past two successful pregnancy, she had started taking folic acid early enough.

The first antenatal visit was at ten weeks of pregnancy, where her baseline measures were taken and documented. Blood pressure was 125/75 mmHg, weight 62 kg, height 165 centimeters, BMI 22.8. She had no edema. The hemoglobin level was at 14, urinalysis normal, TORCH findings were normal, and VDRL findings also normal. Her blood group is B, and Rhesus factor was positive.

She attended second antenatal visit at gestation age 18 weeks, and her evaluation were done and no abnormalities were detected. However, at gestation age 24 weeks she started experiencing white vaginal discharge and sometimes itchiness in the groin. She tried improving her hygiene levels wearing loose dressings, and using over-the-counter antifungal creams, but the problem persisted in 25 week, and at the 26th week of her gestation she went for the antenatal check. The discharge was diagnosed as candidiasis. Her blood pressure were normal at (125/75 mmHg), and so were her fetal growth and heart rate. However, further assessment revealed she had high blood sugars of 120 mg/dL four hours after the meal. She was requested to monitor her sugars for one week, which remained high even on fasting. This led to a diagnosis of gestational diabetes since previously she hand never been diagnosed with diabetes.

Her third-trimester visit was at 34 weeks, where gestational diabetes was persisted, but already on management regime. The fetal heart rate was at 140 beats per minute clear and regular. The fundal height was consistent with the age by dates, the presentation was cephalic, fetal lie was longitudinal, and the fetal position was left occipital anterior.

Past Obstetric History

Her first pregnancy was on 2007 she, delivered a live male infant 3.2 kg normally without complications. Her second pregnancy was on 2011, still delivered per vaginal. She

delivered a live male infant weighing 3.4 kilograms. The baby suffered mild respiratory distress, but he recovered afterward. No maternal complications occurred. In both these pregnancies, she had no signs or symptoms of diabetes.

Past Gynecological History

She occasionally does a self-breast examination. Last Pap smear was done 2013 April and was found normal. She is married, and has been out of contraceptive usage since five months before her third pregnancy was conceived, but used intrauterine Copper-T coil after her second born. She has never had sexually transmitted diseases, post-coital bleedings, or abortions.

Past Medical and Surgical History

Never been hospitalized, no history of medical or surgical conditions

Drug History and Allergies

Currently on insulin shots for her diabetes problem. No history of drug allergy.

Family History

Maternal grandmother diagnosed with diabetes and hypertension at her late 60s.

Social History

She does not smoke, does not take alcohol, but often exercises with her husband who is a football coach at a locate school. She is a housewife and lives with her husband.

Systemic Enquiry

Nil of note

Examination at 37 Weeks of Pregnancy

General

She looks alert, well groomed, and clinically well. She is not pale; no edema noted, and the fundus is appropriate for age. Her blood pressure is 125/80 mmHg, and random blood sugar level of 105 mg/dL.

Abdominal

On inspection of the abdomen, there is a globular swelling consistent with the pregnant state. Linea nigra is absent, but striae gravidarum observed on the iliac regions. She has no scars, and the fetal kicks were observed.

On palpation, fundal height is 36 cm, fetal lie longitudinal, presentation cephalic, position is left occipital anterior, and the head three parts in. The fetal heart rate is 142 beats per minute clear and regular. Moderate contractions felt, which consistent clients are reporting.

Summary of Examination

The mother has one fetus at term, diagnosed gestational diabetes, she is in active labor phase, and fetal characteristics are normal.

Case Discussion

This case involved a case of gestational diabetes since the mother had not diabetes prior this pregnancy. The condition was diagnosed at gestational age queried at gestation age 25 and confirmed at gestation age 26 weeks. Hypertension was ruled out, and the patient was advised on diet modification to reduce calories; exercising often to maintain the sugars below 95 mg/dL.

Consistent blood sugar monitoring was also emphasized, and client advised to take injectable insulin whenever diet therapy and exercise failed to regulate her sugars, but in consultation with her physician. Risk factors for gestational diabetes include obesity, multiple pregnancies, prior gestational diabetes, and family history of diabetes. The only risk associated with this lady was a hereditary link.

Labor Progress

She was admitted while in the active phase of labor. She claimed her water broke on her way to the hospitals roughly 1.5 hours ago. On examination;

- The fetal heart rate was 142 beat/minute,
- Lie - longitudinal,
- Presentation - cephalic,
- Position - left occipital anterior,
- Engagement - head three parts in.

Vaginal examination was done and confirmed cervical dilatation to be 9cm. She was admitted to the delivery room, and necessary preparations made. She was put on insulin drip since she had not taken any, and the blood sugars were a bit elevated at 105 mg/dL. The vitals were observed and recorded in the Partograph.

Thirty minutes following admission, she was in the second stage of labor, which took 25 minutes. The client was encouraged to push the baby with every contraction. Having undergone the process in her previous deliveries, she cooperated with the delivery team. Several pushes and the baby was delivered effectively and successfully without complications. A progress of over 2

hours would have indicated a problem with the progress of the labor necessitating vacuum delivery.

Syntometrine 1cc was injected intramuscularly into her thigh to enhance the third stage of labor and reduce risks of postpartum delivery. The third stage took 10 minutes. Alternative third stage of labor management approaches includes use of syntocinon (mostly for hypertensive patients who cannot use Syntometrine), and traditional management, which is associated with high risk of postpartum hemorrhage and prolonged third stage of labor since there is no use medication to enhance uterine contraction.

Post-Delivery Care

Maternal blood sugars and vitals should be monitored closely at least for 48 hour period. Gestational diabetes resolves after delivery or termination of pregnancy, but put the mother at risk of developing Type 2 Diabetes. The results post-delivery on blood sugar levels should guide further management. The baby should receive heel prick for blood sugars tests. The baby should also breastfeed within one hour to ensure availability of sugars to reduce the risk of hypoglycemia.