**University of the Philippines - Manila**

**College of Medicine & Philippine General Hospital**

**Department of Obstetrics and Gynecology**

**OB-GYN 251: Clinical Clerkship in Obstetrics and Gynecology**

**MYOMA CASE PROTOCOL**

**LEARNING OBJECTIVES:**

1. To present a complete history and physical examination of a patient with myoma
2. To formulate differential diagnoses for myoma based on patient’s history and physical examination
3. To discuss the pathophysiology of myoma
4. To discuss risk factors and possible complications of myoma
5. To discuss possible diagnostic examinations pertinent to myoma
6. To interpret pertinent laboratory and diagnostic examinations
7. To correlate pertinent laboratory results and imaging with the signs and symptoms of the patient
8. To discuss current management strategies in myoma

**HISTORY**

**General Data**

Patient is Y.E., 49 year-old, married, Roman Catholic, from Pasig City

**Chief Complaint**

Heavy menstrual bleeding

**History of Present Illness**

3 years prior to admission, patient experienced prolonged heavy menstrual bleeding, fully soaking 6 pads per day with blood clots, lasting for 7 days, occurring intermittently every 2-3 months. She had no palpable abdominal mass. There was no associated pain, tenderness, loss of appetite nor weight loss. No consult was done, and no medications were taken.

1 years prior to admission, she noted recurrence of heavy menstrual bleeding soaking 1 baby diaper per day lasting for 5-7 days, associated with gradual abdominal enlargement. No associated urinary or bowel movement changes, no palpable mass noted. Patient sought consult in a private clinic, wherein transvaginal ultrasound was requested and done, which showed presence of 2 myoma (size unrecalled). She was advised surgery, however, patient was lost to follow-up due to financial constraints.

7 months prior to admission, still with heavy menstrual bleeding soaking 3 adult diapers per day, fully soaked for 1-2 weeks. Still associated with abdominal enlargement, with occasional low back pain and hypogastric pain. This prompted consult at PGH OPD. Laboratories and ultrasound were done, and eventually was advised to undergo surgery (EL, THBSO), thus, her admission.

**Review of Systems**

(-) Anorexia

(-) Weight Loss

(-) Fever

(-) Cough and colds

(-) Difficulty of Breathing

(-) Chest pain

(-) Jaundice

(-) Foul smelling vaginal discharge

(-) BM changes

(-) Dysuria, frequency, urgency

(-) Edema

**Past Medical History**

(+) Bronchial asthma, maintained on Salbutamol inhaler as needed, last attack December 2019

No hypertension, diabetes mellitus, cancer, thyroid, lung, or cardiovascular diseases

No previous surgeries or hospitalizations

**Menstrual History**

Menarche started at 11 years old, occurring at regular monthly intervals, lasting 4 days, using up 2-3 pads per day, moderately-soaked, with associated dysmenorrhea

LMP: July 2020 (unsure)

**Obstetric-Gynecologic History**

Gravida 2 Para 2 (1101)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Date | AOG | Mode | Place | Weight | Sex | Status | Complic. |
| 1 | 1991 | FT | SVD | Home | unrecalled | F | Alive | None |
| 2 | 2008 | PT (6mos) | SVD | Hosp | unrecalled | F | IUFD | PPROM |

**Family medical history**

(+) Hypertension - mother

(+) Diabetes mellitus - father

No history of gynecologic pathologies in first degree family members, cancer, bronchial asthma, or cardiovascular problems

**Personal, Social, and Sexual History**

Patient is a high school graduate who works as a tailor. She does not smoke, drink alcoholic beverages, nor take illicit drugs. Her first sexual contact happened when she was 18 years old. She had 2 non-promiscuous sexual partners. She has no history of sexually transmitted diseases.

**PHYSICAL EXAM**

|  |  |
| --- | --- |
| **General** | Awake, alert, comfortable, not in cardiorespiratory distress |
| **Vitals** | BP 110/80mmHg HR 82 bpm RR 18 cpm O2Sat 98% T 36.5oCHt 152 cm Wt 52 kg BMI 23.5 |
| **HEENT** | Anicteric sclera, pink conjunctivae, no cervical lymphadenopathy |
| **Chest** | Equal chest expansion, clear breath sounds |
| **CVS** | Adynamic precordium, distinct heart sounds, normal rate, regular rhythm, no murmurs |
| **Abdomen** | Soft, distended, globular, (+) 22 x 21 x 10 cm firm, well-demarcated, nontender, movable pelvoabdominal mass in the hypogastric area |
| **Pelvic/Internal Exam** | *External genitalia:* Normal external genitalia, no masses, no lesions*Internal and Bimanual exam:* Smooth parous vagina, cervix is 2x2 cm, smooth, firm, closed; no cervical motion tenderness, corpus asymmetrically enlarged to 18-20 weeks AOG no adnexal masses or tenderness, *Rectovaginal exam:* Good sphincter tone, no fullness in the cul de sac, bilateral parametria are smooth and pliable, no intraluminal masses, intact retrovaginal septum. Inferior pole of the mass not palpable at the cul de sac. There was no blood per examining finger. |
| **Extremities** | Full, equal, pulses, pink nail beds, CRT<2s, no cyanosis, edema |

**DIAGNOSTICS**

**Complete Blood Count (02/19/2020)**

|  |  |
| --- | --- |
| WBC | 5.70x10^9/L (NV: 4.50-11.0) |
| RBC | 4.35x10^12/L (NV: 4.2-5.4) |
| Hemoglobin | 100 g/L (NV: 120-160) |
| Hematocrit | 0.30 (NV:0.38-0.47) |
| MCV | 90 fL (NV: 80-96) |
| MCH | 30.5 pg (NV: 27-31) |
| MCHC | 324 g/L (NV: 320-360) |
| RDW | 13.2 (NV: 11-16) |
| Platelet Count | 344x10^9/L (NV: 150-450) |
| Neutrophil | 0.62 (NV: 0.50-0.70) |
| Lymphocyte | 0.24 (NV: 0.20-0.50) |
| Monocyte | 0.08 (NV: 0.02-0.09) |
| Eosinophil | 0.05 (NV: 0.00-0.06) |

**Coagulation Studies (02/19/2020)**

|  |  |
| --- | --- |
| PT-REFERENCE | 12.60 s |
| PT-TIME | 12.3 s (NV: 11.4-13.9) |
| PT% | 103 % |
| PT -INR | 0.98 |
| APTT-REFERENCE | 30.38 s |
| APTT-TIME | 28.8 s (NV: 25.8-35.0) |

**Serum Chemistry (02/19/2020)**

|  |  |
| --- | --- |
| Sodium | 138 mmol/L (NV: 137-145) |
| Potassium | 3.5 mmol/L (NV: 3.5-5.1) |
| Chloride | 104 mmol/L (NV: 98-107) |
| BUN | 4.3 mg/dL (NV: 7-17) |
| Creatinine | 0.52 mg/dL (NV: 0.52-104) |
| AST | 22 U/L (NV: 14-46) |
| ALT | 26 IU/L (NV: <35) |
| Albumin | 41g/L (NV: 35-50) |
| Calcium  | 2.33 mmol/L (NV: 2.10-2.55) |
| HBsAg | Non-reactive |

**Lipid Profile**

|  |  |
| --- | --- |
| FBS | 5.0 mmol/: (NV 4.1-5.9) |
| Cholesterol | 4.3 mmol/L (NV:<5.2) |
| Triglycerides | 0.78 mmol/L (NV: <1.69) |
| HDL | 1.37 mmol/L (NV: 1.03-1.55) |
| VLDL | 0.37 mmol/L (NV: 0.31-0.78) |
| Direct LDL | 2.34 mmol/L (NV:<2.59) |

**Urinalysis (02/19/2020)**

|  |  |
| --- | --- |
| Color | Yellow |
| Transparency | Slightly hazy |
| Bilirubin | Negative |
| Urobilinogen | Normal |
| Glucose | Normal |
| Albumin | Negative |
| Blood | +2 |
| pH | 5.5 |
| Nitrite | Negative |
| Leucocytes | Negative |
| Specific gravity | 1.019 |
| RBC | 0/HPF (NV: 0-2) |
| WBC | 0/HPF (NV: 0-5) |
| Epithelial cells | 0/HPF (NV: 0-3) |
| Bacteria | 1/HPF (NV: 0-50) |
| Mucus thread | 2/HPF (NV: 0-3)  |

**Transvaginal / Transabdominal Ultrasound**

|  |
| --- |
| The uterus is anteverted with irregular contour and heterogeneous echopattern measuring 30.5 x 11.6 x 12.6 cm. The cervix measures 3.6 x 2.5 x 2.6 cm with a nabothian cyst at the posterior cervical lip measuring 0.9 x 0.8 x 0.5 cm. The endocervical canal is distinct. There are at least six well-circumscribed heterogeneous uterine masses seen: M1: 8.0 x 8.4 x 6.3 cm at the posterior isthmic, hybrid, (FIGO grade 2-5). M2: 3.1 x 3.2 x 2.8 cm at the posterior midcorpus, intramural, (FIGO grade 4). M3: 4.7 x 4.2 x 3.1 cm at the posterior midcorpus, intramural, (FIGO grade 3). M4: 7.8 x 8.3 x 5.9 cm at the left lateral midcorpus, intramural with subserous component (FIGO grade 5). M5: 9.1 x 9.9 x 7.5 cm at the posterior midcorpus, hybrid (FIGO grade 2-5). M6: 5.3 x 4.5 x 3.6 cm at the posterofundal, intramural (FIGO grade 4). The endometrium is hyperechoic measuring 0.3 cm with low level echo fluid interface at the fundal area. The subendometrial halo is intact. Both ovaries are not seen. There are no adnexal masses seen. There is no free fluid in the cul de sac. |
| **IMPRESSION:** |
| ENLARGED ANTEVERTED UTERUS WITH MULTIPLE MYOMA UTERI (HYBRID, INTRAMURAL, INTRAMURAL WITH SUBSEROUS COMPONENT) THIN ENDOMETRIUM WITH MINIMAL HEMATOMETRA  |

**GUIDE QUESTIONS**

1. What are the salient points of the case based on the history? What additional information would you like to know?
2. What are the pertinent physical examination findings?
3. What are the differential diagnoses for the case?
4. What is a myoma? What are the different types of myoma?
5. What are the risk factors for developing myoma?
6. How do you diagnose leiomyomas? What are its features?
7. Discuss the pathophysiology/pathogenesis for development of myoma
8. What diagnostic tests will you order?
9. Interpret the diagnostic tests and correlate them with the patient's presentation.
10. Discuss the different management strategies for leiomyoma. How will you manage the patient?
11. Discuss the relevant risks and strategies of the different managements