**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**

**CERVICAL CANCER**

**Learning Objectives:**

1. To discuss an index case of cervical cancer
2. To give differential diagnoses of women presenting with postcoital bleeding
3. To rationalize the different modalities in the diagnosis of cervical cancer
4. To enumerate the risk factors, screening, and prevention for cervical cancer
5. To explain the disease causation, disease progression, and pathophysiology of cervical cancer
6. To give an overview of the staging and corresponding treatment and its’ rationale

**General Data:**

EV, a 49 / Gravida 4 Para 4 (4004), Roman Catholic, Married, vendor from Pasay

**Chief Complaint:**

Postcoital bleeding

**Past Medical History:**

(+) Hypertension since 2018 maintained on Losartan 100mg once a day with highest BP 160/80, usual BP 120-130/80

(-) DM, Asthma

(-) previous hospitalizations

(-) surgeries

(-) allergies

(-) blood transfusions

**Family Medical History:**

(+) Breast cancer – maternal aunt

(+) Diabetes mellitus – father

(+) Hypertension – mother

(-) thyroid diseases

**Personal and Social History:**

High school graduate

Fish vendor at a wet market

(+) Smoker – start smoking at 17 years old consuming 5 sticks per day (8 pack year smoker)

Non-alcoholic beverage drinker

Denies illicit drug use

**Menstrual History:**

She started menstruating at 13 years old, occurring monthly, lasting around 4-5 days, soaking 3-5 moderate soaked pads per day. She does not experience dysmenorrhea during her menses.

Last menstrual period: September 14, 2020 (1 month PTC)

**Sexual History:**

First coitus at 18 years old, with 3 sexual partners, 2 of which are promiscuous (~5 previous sexual partners)

(+) OCP use x 7 years since 1994, (-) IUD, (-) Depot MPA use

Last Pap Smear 5 years ago which showed normal results

**Obstetric History:**

G4P4 (4004)

G1 – 1992 – term – NSD – Hospital – Male – AGA - alive

G2 – 1994 – term - NSD – Hospital – Female – AGA -alive

G3 – 2003 – term – NSD - Hospital - Female- AGA– alive

G4- 2011- term – NSD - Hospital – Female- AGA- alive

**History of Present Illness:**

12 months PTC, patient experienced spotting after having intercourse with her husband. There is no accompanying hypogastric pain, foul-smelling vaginal discharge, no vulvar pruritus/skin discoloration. No consult done. No medications taken.

6 months PTC, there was still persistence of the post-coital spotting. She would also notice occasional fishy odor whenever she removed her underwear. There is no dysuria, no fever, no hypogastric pain. No consult done. No medications taken.

3 months PTC, with the persistence of the post-coital bleeding and foul-smelling discharge, she decided to consult at a local health center where a transvaginal ultrasound and pap smear was recommended to be done. Assessment during that time was bacterial vaginosis and she was given metronidazole 500mg/tab twice a day for 7 days. A transvaginal ultrasound was done which showed the uterus is normal in size and anteverted with homogenous echopattern and smooth contour measuring 4.9 x 5.3 x 4.4 cm. the endometrium is hyperechoic measuring 0.93 cm with intact subendometrial halo. The cervix measures 3.1 x 4.6 x 3.6 cm. with the lower 3rd of the anterior endocervical canal is a heterogenous mass measuring 1.8 x 2.1 x 1.6 cm (volume 3.24 cc) consider endocervical polyp rule out cervical malignancy. Both ovaries are nomal in size and echotexture. The right ovary measures 2.4 x 2.7 x 1.3cm, the left ovary measures 2.9 x 1.7 x 1.4cm. No free-fluid in the cul-de-sac. The final impression is: cervical mass consider endocervical polyp cannot totally rule out cervical malignancy. Normal sized anteverted uterus. Secretory phase endometrium. Normal ovaries. She was advised OB-GYN consult.

The week after, she went to see a private OB where a cervical punch biopsy is done. She was given tranexamic acid 500mg/tab 2 tabs every 8 hours for heavy bleeding and mefenamic acid 500mg/tab every 8 hours. The biopsy showed squamous cell carcinoma of the cervix. She was subsequently referred to PGH Gynecologic Oncology service for management.

**Review of Systems**

**General**: (-) fever, weakness, weight loss, pallor

**HEENT**: (-) headache, blurring of vision

**Pulmonary**: (-) dyspnea, cough

**CVD**: (-) chest pain, palpitations, easy fatigability, orthopnea, edema

**GI**: (-) constipation, diarrhea, jaundice, hematochezia, melena

**GU**: (-) dysuria, hematuria, urinary incontinence

**Neurological**: (-) numbness, paresthesia, dizziness

**Endocrine:** (-) polydipsia, polyuria, polyphagia, heat/cold intolerance

**Physical Examination:**

**Vital Signs:** Blood Pressure 110/70, Heart Rate 85 beats per minute, Respiratory Rate 20 breaths per minute, Temperature 37.0o C, 98% O2 saturation

**Height:**  156 cm **Weight:** 73 kg **BMI:** 29.9

**General:** Patient is awake, conversant, and not in cardiorespiratory distress

**HEENT:** Anicteric sclerae, pink palpebral conjunctivae, (-) cervical lymphadenopathy, (-) neck vein engorgement, (-) anterior neck mass

**Heart and Lungs**: Adynamic precordium, distinct heart sounds, normal rate and regular rhythm, equal chest expansion, clear breath sounds

**Abdominal:** Flabby abdomen, normoactive bowel sounds, tympanitic, nontender, no masses

**Extremities:** No inguinal lymphadenopathies, full and equal, pulses, pink nail beds, CRT<2s, (-) cyanosis, (-) edema

**Speculum Exam:** vagina pink smooth no masses, cervix 2x2 cm, pink, smooth (+) polypoid mass measuring 2 x 2 cm

**Pelvic/Internal Exam:** Normal external genitalia, smooth vagina, cervix 2x2 cm, (+) polypoid mass measuring 2 x 2 cm with a 0.4 cm pedicle attached at the 1 o’ clock position, corpus small, bilateral parametria smooth and pliable

**Laboratory and Diagnostic Findings:**

|  |  |
| --- | --- |
| Test | Result |
| Anti-HbS | Reactive |
| HbsAg | Non-reactive |
| ICC ELISA | Non-reactive |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CBC (2/12/2020)** | **Result** | **Blood chemistry** |  | **Coagulation studies** |  |
| WBC | 11.20 | BUN | 4.07 | PT | 13.3 |
| RBC | 4.30 | Crea | 83.63 | PT% | 92% |
| Hemoglobin | 130 | AST | 27.06 | INR | 0.83 |
| Hematocrit | 0.39 | ALT | 25.03 | PT ref | 35.1 |
| MCV | 88.3 | Alb | 45.5 | aPTT | 27.6 |
| MCH | 28.8 | Na | 147.6 |  |  |
| MCHC | 326 | K | 3.74 | **Blood typing** | O+ |
| RDW | 15.8 | Ca | 2.2 |  |  |
| MPV | 8.4 | Alb | 42 |  |  |
| Platelet count | 280 | Mg | 0.71 |  |  |
| Neutrophil | 0.66 |  |  |  |  |
| Lymphocyte | 0.21 |  |  |  |  |
| Monocyte | 0.08 |  |  |  |  |
| Eosinophil | 0.01 |  |  |  |  |
| Basophil | 0.00 |  |  |  |  |

**CT SCAN OF THE CHEST, ABDOMEN AND PELVIS**

Multiple axial tomographic sections of the chest, abdomen and pelvis with oral and rectal contrast were obtained before and after uneventful administration of intravenous contrast media.

Clinical history: Cervical carcinoma. No previous imaging provided for comparison.

Findings:

Chest

The lungs are well-aerated with no consolidation or atelectasis. No evidence of mass, pleural effusion or thickening.

There are no enlarged mediastinal lymph nodes. No cardiomegaly or pericardial abnormality. The thoracic aorta is unremarkable. The esophagus is predominantly air-filled with no signs of wall thickening. Minimal osteophytes are seen along some of the thoracic vertebral endplate margins. The rest of the bony thorax, including the ribs and sternum, are unremarkable. The extra-thoracic soft tissues are not unusual. No other remarkable findings.

IMPRESSION:

1. No evidence of gross pulmonary mass or lymphadenopathy to suggest metastasis.
2. Beginning thoracic spondylosis.

Abdomen and Pelvis

A 3.9 x 5.6 x 4.6 cm (cc x ml x ap) heterogenous enhancing mass arises in the uterine cervix. The adjacent adnexal fat shows minimal stranding.

No enlarged para-aortic lymph nodes demonstrated.

The liver is normal in size and configuration. The parenchyma shows slightly decreased attenuation suggestive of fatty infiltration. No mass lesions seen. The portal vein Is Intact.

The intrahepatic and common bile ducts are not dilated. The gallbladder wall is slightly thickened. No lithiasis detected. The pancreas and spleen are grossly normal.

The stomach, small and large intestines show no evidence of wall thickening, mucosal mass or obstruction. The appendix is unremarkable.

The adrenal glands are negative for masses. Both kidneys are normal in sizes and exhibit good excretory function. The pelvocalyces and ureters are bilaterally intact and no evidence of radio-opaque lithiasis or hydronephrosis.

The urinary bladder will appears slightly thickened. No mucosal mass or lithiasis noted.

The abdominal aorta and inferior vena cava are normal in course and caliber. A tiny calcified plaque lines the abdominal aorta.

Osteophytes are seen along some of the lumbar vertebral endplate margins. The rest of the osseous structures are unremarkable.

No other remarkable findings.

IMPRESSION:

1. Uterine cervical mass with regional fat stranding, as described, representing the clinically diagnosed malignancy.
2. Mild hepatic steatosis.
3. Cannot rule out mid acalculous cholecystitis.
4. Mild cystitis considered.
5. Atherosclerosis.
6. Mild lumbar spondylosis.

**Primary working impression:**

Squamous cell carcinoma, keratinizing, cervix, stage IB2

s/p cervical punch biopsy (3/10/20, Ospital ng Maynila)

Hypertension stage II – controlled

Obese I

The **operative plan** is exploratory laparotomy, radical hysterectomy with bilateral salpingo-oophorectomy, bilateral lymph node dissection, paraaortic lymph node sampling.

**Guide Questions**

1. What are the salient features of this case?
2. What are the differential diagnoses of women presenting with postcoital bleeding?
3. What are the risk factors of cervical cancer? What are present in our index case?
4. If you were the doctor that has seen her 5 years ago with the “normal pap smear”, what would you advise her? What level of prevention (primary, secondary or tertiary) is the use of Papanicolaou smear? What is the principle behind pap smear? When should this be offered? Why not before the age of 21? What are the things to advise patients before undergoing pap smear? How is pap smear done? Differentiate between conventional vs. liquid-based cytology in terms of advantages and disadvantages. What is visual inspection with acetic acid?
5. What are the laboratories and imaging modalities that aid in the diagnosis of cervical cancer? What is the rationale of each modality? In relation to our case, were the laboratories requested enough? What is cervical punch biopsy? How is it done?
6. What causes cervical cancer? What is the natural history of HPV infection? What explains the symptoms of post-coital bleeding and foul-smelling discharge? What are the other symptoms of this disease as the disease progresses?
7. What is the staging and corresponding treatment of cervical cancer? How is cervical cancer staged? What are the routes of metastases? In our patient, was the treatment appropriate for the stage? What would you advise this patient?