Running head: CASE STUDY

Benign Phyllodes of the Breast

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Benign Phyllodes of the Breast

The reason for selecting this case is to understand the importance to monitor all patients with breast lesions even after a diagnosis of a benign lesion and the need for core needle biopsies rather than fine needle aspirations for all breast lesions.

Subjective Data

Patient Profile

Identifying Factors

I.P. is a 37 year-old Caucasian female who presented to the Parkland Health and Hospital System Surgical Oncology Clinic on 10/21/09. She is a new patient to the practice.

Background Information

Chief Complaint:

Newly diagnosed unilateral lesion to the right breast that was biopsied at an outside facility with a diagnosis of fibroadenoma.

History of Present Illness

This is a 37 year-old woman who self palpated a breast mass in her right breast in early 2009. The patient contacted her primary care physician and a diagnostic mammogram was ordered. The mammogram was completed at Solis Women's Imaging in Fort Worth, Texas in March of 2009. The mammography/sonogram report states a solid homogenous predominantly circumscribed lobulated mass measuring 3.1 x 2.1 x 2.0 centimeters. A fine needle aspiration was taken of the lesion. The pathology reported a benign fibroadenoma. The patient came to Parkland Health and Hospital System in October of 2009 for a second opinion. The films and reports from the outside facility

were evaluated. The sonogram at the Parkland's breast center was completed October 14, 2009. The report stated a mass now measuring 3.9 x 3.4 x 4.8 centimeters in the right breast. This was an increase in size from the March 2009 report. The mass was described as a solid homogenous predominantly circumscribed lobulated mass in the right breast. Due to the increase in size, the patient was sent to the breast surgical oncology clinic at Parkland Health and Hospital System.

Past Medical History

Illnesses:

1. No chronic medical problems

Allergies:

1. No known drug allergies

Surgeries:

1. Bilateral breast implant placement 1982
2. Ovarian cystectomy 1965

Medications:

1. Mulitivitamins
2. Calcium
3. Cholecalciferol 600/125 mg/units bid
4. Ergocalciferol 50,000 units orally each day
5. Actonel 150 mg every 30 days
6. Estradiol / testosterone pellets placed subcutaneously every 5-6 months

7. Progesterone Cream monthly

Breast Cancer Risk History:

1. Menarche age 13
2. Gravida 3, Para 2, Abortions 1
3. Age at first live birth, 22 years of age
4. Age at menopause, 51 years of age
5. Age of first lactation, 22 years of age
6. Total duration of lactation, 12 months
7. No oral contraceptive use
8. Receiving Depo Estrogen and testosterone by subcutaneous pellet placement every 5 to 6 months for 2 years. Pellets are bio-identical hormones and the dosage is adjusted according to the follicle stimulating hormone level. The goal of these pellets were to obtain follicle stimulating hormone levels similar to that experienced by a premenopausal woman in the luteal phase of the menstrual cycle. Progesterone cream is used to induce menses monthly.
9. No benign breast biopsies.
10. Family history is positive for a postmenopausal breast cancer in a maternal aunt and a postmenopausal breast cancer in a paternal grandmother.

Social History:

The patient is married and works as an administrative assistant in a law firm. She has 2 adult children living with no medical problems. She does not

smoke and drinks approximately 2 ounces of alcohol per week. She has no history of drug use. She lives in a small community approximately twenty minutes from Dallas and has no transportation concerns. She has adequate insurance through her employer and has no financial concerns at this time. She has a good support system at home including her husband and mother that lives with the same community. She has one heterosexual partner, her husband, and no history of sexually transmitted diseases.

Review of Systems:

General/Constitutional

Average weight, no recent weight loss or gain, good general state of health, sense of well-being, good strength and ability to conduct usual activities

Skin/Breast

No rash, itching, abnormal pigmentation, moisture or dryness, texture, changes in hair growth or loss, or nail changes

No breast lumps, tenderness, swelling, or nipple discharge bilaterally

Eyes/Ears/Nose/Mouth/Throat

No headaches vertigo, lightheadedness

No visual problems, no double vision, tearing, blind spots, pain

No nose bleeding, colds, obstruction, or discharge

One dental bridge, no cavies, no gingival bleeding

No neck stiffness, pain, tenderness, masses in thyroid or other areas

Cardiovascular

No precordial pain, substernal distress, palpitations, syncope, or dyspnea on exertion. No orthopnea, nocturnal paroxysmal dyspnea, edema, cyanosis, hypertension, heart murmurs, or varicosities

Respiratory

No shortness of breath, wheezing, stridor, cough, hemoptysis, respiratory infections. No history of tuberculosis, fever or night sweats

Gastrointestinal

Good appetite prior to cancer diagnosis. No dysphagia, indigestion, abdominal pain, heartburn, nausea, vomiting, hematemesis, jaundice, constipation, or diarrhea. Normal stools. No recent changes in bowel habits.

Genitourinary

No urgency, frequency, dysuria, nocturia, hematuria, polyuria, or oliguria. Last menses 08/15/09.

Musculoskeletal

No pain, swelling, redness or heat of muscles or joints. No limitation of motion, muscular weakness, atrophy, or cramps.

Neurologic/Psychiatric

No history of convulsions, paralyses, or tremor. States acute anxiety and insomnia since breast cancer diagnosis. No history of depression or mental distress.

Allergies

No reactions to drugs or food.

Objective Data/Exam

VS:

Ht: 5'7" Weight: 201 pounds Temp: 98.8 Pulse: 82 BP: 150/88 R: 18

General:

J.S. is a 56-year-old Caucasian female in no acute distress. She is well developed, well nourished and mildly overweight. She is well dressed and groomed and articulates well. She appears moderately nervous.

Skin/Hair/Nails:

Her skin warm, pink, and moist. No bruising or rashes noted. Her hair shows no excessive dryness and is well groomed. Her nails are short with capillary refill less than two seconds.

Head:

Normocephalic. No lesions noted.

Eyes:

No exophthalmos; Pupils equal, round, 4 mm, and reactive to light and accommodation. Visual fields intact. Sclera white, conjunctivae clear without systagmus.

Ears:

Excessive cerumen in right ear. Left tempanic membrane intact, gray, cone of light noted. No drainage noted.

Nose:

No sinus tenderness with palpation, nasal septum midline and intact. Mucosa pink, without edema or drainage.

Neck:

Easily movable without resistance, supple without lymphadenopathy or thyromegaly. No thyroid masses. Trachea is midline and without masses. No difficulty swallowing. No carotid bruits.

Lungs/Heart:

Lungs are clear to auscultation bilaterally. Heart is regular with normal S1-S2. No murmur, rub, or gallop. Respirations are unlabored.

Abdomen:

The abdomen is symmetrical without distention; bowel sounds are normal in quality and intensity in all four areas; no masses or splenomegaly noted. Liver span is 8cm by percussion.

Extremities:

No cyanosis, clubbing, or edema noted. Peripheral pulses in the femoral, popliteal, anterior tibial, dorsalis pedis, brachial, and radial areas are normal. Full range of motion noted.

Nodes:

No palpable nodes in the cervical, supraclavicular, or axillay.

Breast:

Symmetrical with no masses palpated, no nipple discharge or skin changes noted bilaterally.

Neurological:

Cranial nerves II – XII grossly intact. Motor and sensory examination of the upper and lower extremities are normal. Gait and cerebellar function normal.

Tests:

Screening mammogram: Subtle densities in the upper/outer quadrant of each breast concerning for maligancy. Birads 0.

Diagnostic Mammogram: Right breast, 10 o'clock, 15 cm from the nipple, a 1.2 cm mass, left breast 1 o'clock, 12 cm from the nipple, a 9 mm mass noted. Birads 4.

Core Biopsy: Core biopsy of both lesions returned grade 1 infiltrating ductal carcinoma. Prognostic markers: ER, PR positive, HER2 Negative

Discussion of Findings

This patient presents with a diagnosis of bilateral breast cancer with estrogen and progesterone positive receptors. She had no complaints and felt no acute distress. She has experienced increased stress with her recent diagnosis and has stated a recent decrease in appetite and insomnia. A detailed history of her hormone use was taken. Her brother is an internal medicine physician in a local town and also interviewed during this initial visit. He is the physician injecting the hormone pellets into her buttocks every 5 to six months. The hormones are bio-identical hormones and are dose adjusted according to the follicle stimulation hormone level. The hormones are inserted into her buttocks in the form of pellets. The last implantation of pellets was August 2009. The increase hormone

status puts her at higher risk for metastatic disease (Tamimi, Hankinson, Chen, Rosner, & Colditz, 2006).

Bio-identical hormones are becoming more popular with patients trying to use natural hormones. Bio-identical hormones are derivatives of plant extracts chemically modified to be structurally indistinguishable from human endogenous hormones (Cirigliano, 2007). The relationship between hormones and cancer were reviewed with the patient in detail. In 2002, the Women's Health Initiative (WHI) showed that combined hormone replacement therapy (HRT) with estrogen plus progestin increased breast cancer risk by 26% (Rossouw, Anderson & Prentice, 2002). This report prompted many women to discontinue all hormone replacement therapy, resulting in a reduction in breast cancer in the United States (Chlebowski et al., 2009). The report that did not get such great media coverage was in 2004 that showed a 23% reduction in breast cancer risk for women using estrogen alone (Anderson, Limacher, & Assaf, 2004). After a long and detailed conversation about hormones and the relationship to breast cancer, J.S. requested we attempt to remove the hormone tablets currently in place during her surgical procedure.

Assessment /Impression

Acute Diagnosis

1. Bilateral infiltrating breast cancer
2. Hormone pellets in situ

Differential Diagnoses:

1. Regional Metastatic Breast Cancer; Level 1, 2, or 3 Lymph Node Involvement
2. Metastatic Breast Cancer

Plan

Laboratory Tests

1. Serum Follicle Stimulating Hormone level
2. Serum Testosterone Level
3. Serum Estradiol Level

Diagnostic Tests

1. Bilateral Breast MRI

Referrals

1. Plastic Surgery
2. Hematology Oncology
3. Radiation Oncology

Education

The education focused on the relationship of hormones and breast cancer and treatment options. She was educated on the four modalities of treating breast cancer, surgery, chemotherapy, radiation and endocrine therapy (Cancer, 2009). The education focused on her surgical options of wire localized bilateral partial mastectomies or bilateral total mastectomies with or without immediate reconstruction (Cancer, 2009). Either procedure would require bilateral sentinel lymph node biopsies with possible axillary lymph node dissections.

Other Recommendations

It was recommended the patient visit with the plastic surgeon and radiation oncologist prior to making a decision on the type of surgery. It was also recommended that the patient stop all supplemental oral and topical hormones as this time.

Follow-Up

The patient returned one week later to complete her plan of care. The patient had a consultation with the plastic surgeon and radiation oncologist.

Discussion of Impression/Plan

The results of the bilateral breast MRI stated enhancing masses in the upper outer portions of each breast, consistent with known malignancies. Bilateral breast implant ruptures were noted. No additional suspicious malignant enhancements were noted in either breast and no evidence of adenopathy was noted. The lab reported a follicle stimulating hormone level of 10.0, a testosterone level of 170 (14-76, reference range), and an estradiol level of 100. The results were discussed with the patient. The lab results confirmed the levels of hormones that the in situ pellets were creating.

The patient requested bilateral wire localized partial mastectomies with bilateral sentinel lymph node biopsies and bilateral breast implant removal. The patient also requested removal of hormone pellets during the procedure. The patient was scheduled for a bilateral wire localized partial mastectomies with bilateral sentinel lymph node biopsies, and bilateral breast implant removal. The patient was also scheduled for a sonography guided excision of her hormone pellets.

Clinical Course

On October 22, 2009 the patient was taken to surgery. She tolerated the procedure well and was discharged the same operative day with minimal discomfort. She

was given post operative wound care instructions and Lortab 5/500 mg tablets every 4-6 hours as needed for pain. She was instructed to return to the clinic in one week for follow-up. Post-operative day one, contact was made with the patient to assess pain. The patient stated she was tolerating the pain well with minimal use of pain medication. The patient returned to the clinic one week later for follow-up. The patient's path stated:

1. Left breast partial mastectomy: 1.8 cm IDC, grade 1. Clear margins.
   0/1 lymph nodes positive for metastatic carcinoma
   Left breast capsulectomy: negative for malignancy

2. Right breast partial mastectomy: 1.4 cm IDC, grade 1, Positive inferior margin, 1 mm posterior margin
   1/1 lymph node positive for metastatic carcinoma metastasis, 2.2 mm in greatest dimention.
   Right breast capsulectomy: negative for malignancy

During her post operative visit, the pathology was explained to the patient in detail. Due to the positive margins in the right breast, the patient was given all surgical options: right breast re-excision of margins or right breast total mastectomy. An axillary lymph node dissection was recommended with either surgery. The patient requested bilateral total mastectomies with right axillary lymph node dissection with immediate bilateral reconstruction. Secondary to the positive lymph node status, the patient will require chemotherapy. Due to her decision of bilateral total mastectomies, the patient is less likely to require radiation unless multiple lymph nodes are positive with her axillary lymph node dissection.

The patient is scheduled for a bilateral total mastectomy with immediate reconstruction and a right axillary lymph node dissection. She will require chemotherapy and endocrine therapy and less likely radiation therapy.

Long Term Follow-Up

After completion of surgery and chemotherapy, the patient will require five years of adjuvant endocrine therapy of a daily aromatase inhibitor. The patient will not require mammograms secondary to bilateral total mastectomies. The patient will also require observation every three years with the medical oncologist and surgical oncologist for a total of five years.

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