

## INTRODUCTION

- Breast Cancer is one of the leading causes of morbidity and mortality for women in the United States numbering some 200,000 cases a year.<sup>1</sup>
- Frequently, the diagnosis is made by routine mammograms or incidental lumps discovered on physical examination.
- Breast cancer, however, may also present as a primary ocular lesion in rare cases.<sup>2</sup>

## CASE SUMMARY

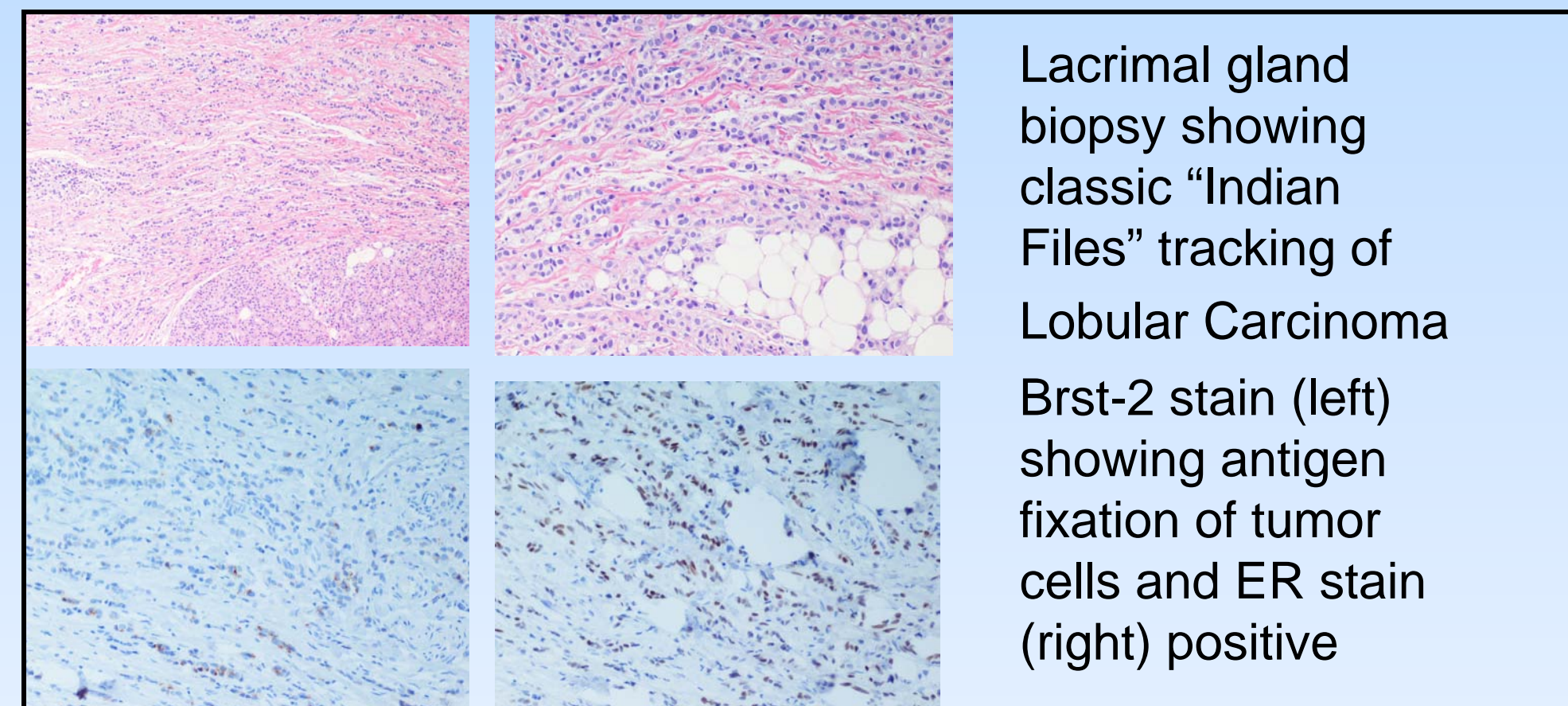
- 63 year old African American female complained of dizziness and diplopia with inability to move her left eye for the past three months. Symptoms were associated with a 10 pound weight loss.
- The orbit was paralyzed but retained visual acuity ; patient noted a palpable mass above the left orbit.
- **Past medical history:** diabetes, hypertension, obesity
- **Gynecologic history:** menopausal since her 40's, menarchy at age 11. Previous pap smears negative. 2 normal healthy pregnancies. No abortions. Mammogram done 4 yrs prior was negative.
- **Social history:** denies tobacco and alcohol. Uses marijuana.
- **Family history:** no history of malignancy.
- **Physical examination:** well-nourished obese female, BMI 34, with a solid non-tender mass in the left peri-orbital region superior and medial to the eye.
- Visual acuity was 20/30 in both eyes.
- Left eye was completely immobile while right eye retained full range of motion.
- Clinical breast exam was negative.

## IMAGES

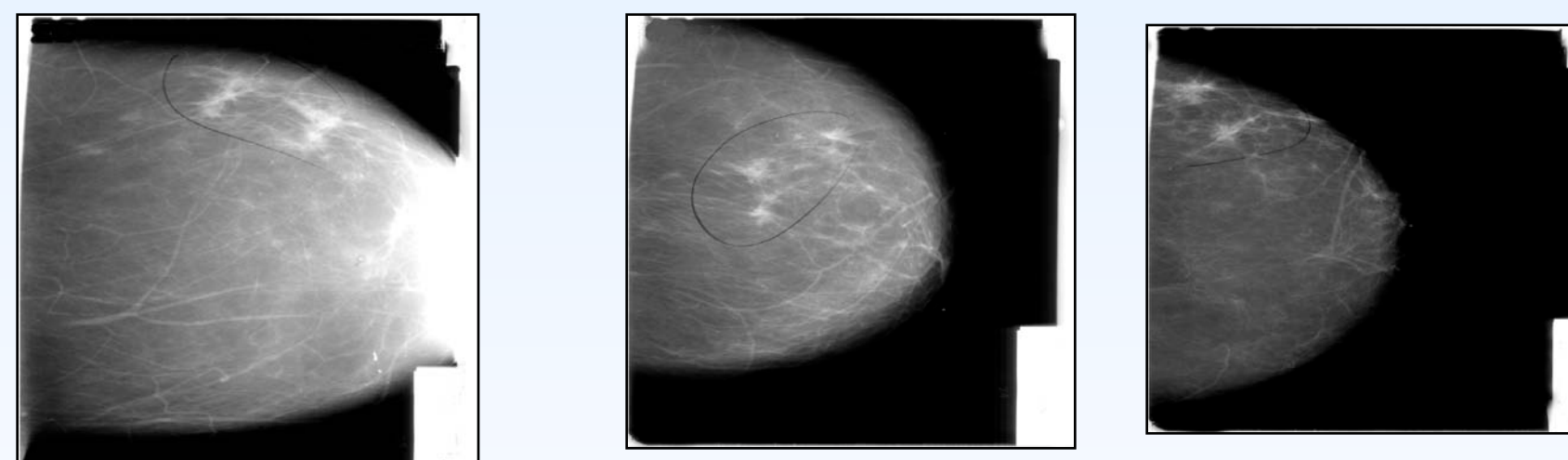


A MRI of the orbits revealed solid infiltrating masses in the retrobulbar area as well as the preseptal spaces giving the patient slight proptosis.

Biopsies taken by ophthalmology demonstrated BRCA negative, HER2 1+/negative, ER 90% positive, and PR negative cell markers consistent with primary metastatic breast cancer.



Additional work-up indicated multiple speculated lesions in the upper-outer quadrant left breast on mammogram.



Further imaging demonstrated a 4-5cm lesion in the liver as well as metastatic lesions to T12 and L2 spine.



## DISCUSSION

- Breast Cancer is a very common malignancy encountered in primary care. The most common sites for metastases are lymph nodes, bone, liver, lung and brain.
- While orbital metastases are thought to be rare, some autopsy series suggest 10-30% of patients with metastatic breast cancer develop an extrabulbar metastases within the orbit.<sup>3</sup>
- In fact, Breast Cancer is the most common primary cancer that metastasizes to the orbit (Breast 53%, Prostate 12%, Lung 8%).<sup>4</sup>
- Female patients who present with orbital masses should undergo an evaluation for breast cancer, as 19% of patients with metastatic orbital masses will have no prior history of malignancy at the time of presentation.<sup>4</sup>
- Our patient was very unique in that she retained vision in her eye but lost extra-ocular movement due to mass effect. Ultimately patient was referred to hematology and oncology and received radiation therapy for spinal and optic lesions with plans to start chemotherapy.

## REFERENCES

- [1] American Cancer Society. *Breast Cancer Facts and Figures 2007-2008*. Atlanta: American Cancer Society, Inc.
- [2] Uveal metastasis from breast cancer in 264 patients *American Journal of Ophthalmology*, Vol136, 2003
- [3] Diagnostic Atlas of Orbital Diseases. Dutton JJ, Byrne SF, Proia AD, Philadelphia: WB Saunders, 2000
- [4] Survey of 520 eyes with uveal metastases. Shields CL, et al. *Ophthalmology*. Aug 1997