CMJ
www.cmj.ac.kr

Fungating Breast Cancer with Metastasis in a Developed Country: A Caveat to Our Strategy

Justine Chinnappan*, Huda Marcus, Thair Dawood, and Ghassan Bachuwa

Department of Internal Medicine, Michigan State University at Hurley Medical Center, Flint, MI, USA

Breast cancer is the most common cancer and is the second most cause of cancer death in the United States per CDC data. Due to this reason, there are various measures implemented in the healthcare system including awareness programs, breast cancer navigators, and screening mammography to identify them in their early stages which are adapted widely in developed countries like the United States.[1] Despite these measures, there are still patients presenting in advanced stages of cancer making us wonder about the effectiveness of these measures in the healthcare system and indicating the need for further interventions.

A 47-year-old female presented to the emergency department with progressive worsening of headaches of over 1 week in duration. She also complained of a mass in the right breast which started as a lump 10 months prior, which continued to increase in size, associated with tenderness, episodes of bleeding and purulent drainage. Other significant histories include no recent physician visits, no prior mammogram, 5 healthy living children who were breastfed, no history of alcohol consumption or smoking, nor a family history of breast cancer. On presentation, she was in acute distress due to pain and the examination was indicative of a large ulcerated fungating right breast mass (Fig. 1A) with multiple right axillary lymphadenopathy and without neurological deficits.

Computed tomography (CT) of the chest revealed 8.6×8.5 cm mass in the right breast with surrounding skin thickening and right axillary lymphadenopathy (Fig. 1B). Magnetic resonance imaging (MRI) of the head revealed a 1.8×2.1 cm enhancing left cerebellar lesion with adjacent vasogenic edema and mass effect on the 4th ventricle (Fig. 2). Needle biopsy of the breast tissue confirmed the diagnosis of poorly differentiated invasive ductal carcinoma which was ER-, PR- and Her-2/neu - with Ki-67 (proliferative index) 35% positive in tumor cells. BRCA-2 gene testing was negative. The patient underwent multiple cycles of stereotactic radiosurgery to the brain and Pembrolizumab-Gemcitabine-Carboplatin chemotherapy. Follow-up at 15 months with CT of chest, abdomen and pelvis revealed reduction in size of primary breast mass and right axillary lymphadenopathy but development of 7 new hepatic lesions and abdominal lymphadenopathy. The needle biopsy of the liver showed a metastatic breast lesion. She continues to receive chemotherapy with close follow-up.

Diagnosis of breast cancer with large fungating mass and brain metastasis on presentation in this era is still

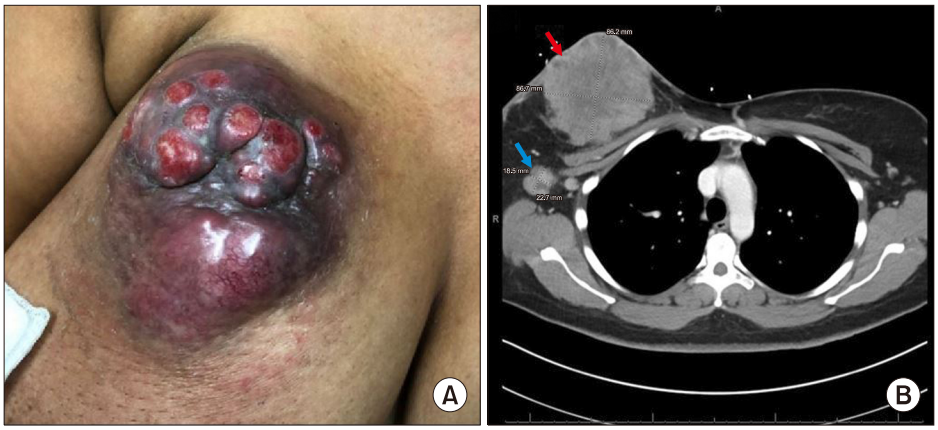

Fig. 1. (A) A clinical photograph of the right breast showing violaceous nodular mass. (B) CT axial view of the chest with contrast showing 8.6×8.5 cm right breast mass (red arrow) with 1.5×2.2 cm right axillary lymphadenopathy (blue arrow).

Corresponding Author:
Justine Chinnappan
Department of Internal Medicine, Michigan State University at Hurley Medical Center, One Hurley Plaza, Flint, MI 48503, USA
Tel: +1-810-262-9437, Fax: +1-810-262-7245, E-mail: justineirene@gmail.com

Article History:
Received June 15, 2023
Revised July 4, 2023
Accepted July 6, 2023

https://doi.org/10.4068/cmj.2023.59.3.194

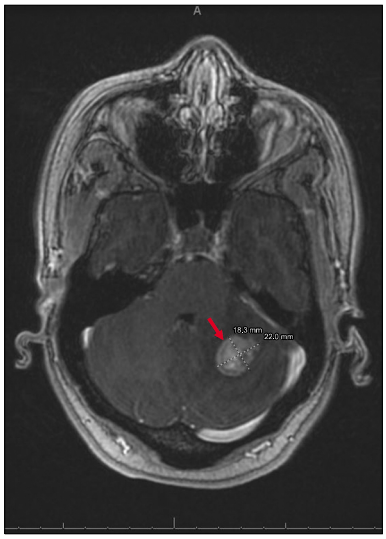

FIG. 2. MRI of the head with contrast (axial view) showing 1.8×2.2 cm contrast enhanced lesion (red arrow) with surrounding vasogenic edema in the left cerebellar hemisphere.

shocking.[2,3] It makes us question the reasons behind these unfortunate presentations which include, but are not limited to: unawareness about the risk factors, symptoms, complications and the available screening guidelines, embarrassment from the site of lesion, or socioeconomic status. Our patient stated that she had fear of doctors which prevented her from seeking medical attention earlier. A systematic review on effects of model-based educational interventions revealed breast cancer screening behaviors were enhanced with these interventions.[4] Among the various models, health belief model (HBM) based educational intervention is widely used. If we could perform the health belief model on our current population and tailor the education accordingly, the chances of decreasing these unfortunate events are high.

CONFLICT OF INTEREST STATEMENT

None declared.

REFERENCES

1. Lei S, Zheng R, Zhang S, Wang S, Chen R, Sun K, et al. Global patterns of breast cancer incidence and mortality: a population-based cancer registry data analysis from 2000 to 2020. Cancer Commun (Lond) 2021;41:1183-94.
2. Ugalde I, Pirela D. Fungating breast mass in a developed country. BMJ Case Rep 2018;2018:bcr2018224727.
3. Haller SM. A large ulcerated fungating breast lesion. Clin J Oncol Nurs 2004;8:76-8.
4. Saei Ghare Naz M, Simbar M, Rashidi Fakari F, Ghasemi V. Effects of model-based interventions on breast cancer screening behavior of women: a systematic review. Asian Pac J Cancer Prev 2018;19:2031-41.