

Letter to the Editor

Miliary Brain Metastasis—A Rare Pattern of Metastases from Breast Cancer

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South Asian J Cancer 2020;9:188–189.

A 50-year-old female presented to our hospital with left-sided nipple discharge for the past 2 months. On evaluation, she was found to have locally advanced invasive ductal cancer of the left breast. Immunohistochemistry revealed estrogen, progesterone receptor status as negative and testing for Her-2 was 3+. She underwent neoadjuvant chemotherapy with TCH (trastuzumab, carboplatin, and taxane) protocol followed by modified radical mastectomy, adjuvant radiotherapy, and maintenance trastuzumab for 1 year. Fourteen months after the completion of maintenance therapy, she was brought to emergency room with a history of convulsions at her home. Contrast-enhanced magnetic resonance imaging (MRI) brain revealed miliary lesions distributed in her entire brain parenchyma. Positron emission tomography-computed tomography (CT) was done that showed extensive skeletal and lung metastasis. She was given whole-brain radiotherapy and was started on palliative chemotherapy (► Fig. 1).

The miliary pattern of metastasis to the brain is a very rare phenomenon and usually seen on MRI as multiple tumor nodules in perivascular distribution, usually associated with lung cancer. Miliary brain metastases from breast cancer are very rare. There was one such reported case in the literature.¹ Contrast-enhanced MRI brain is an important modality to evaluate a suspected case of metastases to the brain. This pattern can be easily missed on CT scan and noncontrast MRI brain scan.² The peculiar aspect of such

metastases is that these lesions are not associated with perilesional edema or compressive effects.³ Important differential diagnoses for such lesions are cryptococcosis, miliary brain tuberculosis, and neurocysticercosis. Pathological diagnosis is the gold standard.⁴ The presence of synchronous systemic metastasis and the clinic radiological correlation is pivotal in making such diagnosis.

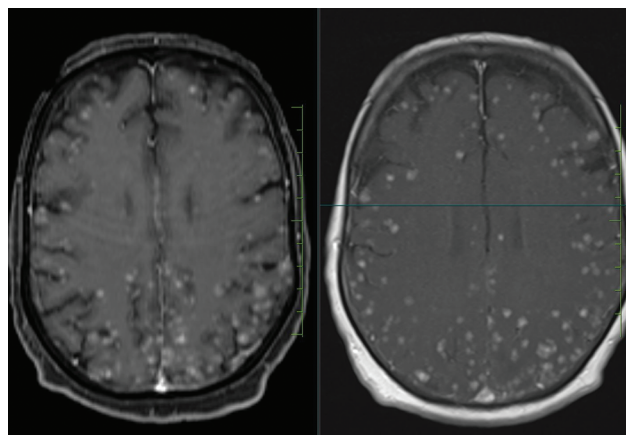


Fig. 1 Magnetic resonance imaging of the brain—postcontrast (both left and right)—reveals multiple subcentimetric tiny enhancing lesions in bilateral cerebral hemispheres—suggestive of metastasis.

How to cite this article: Babu Koyyala VP, Goyal S, Jajodia A, Goel V, Amrith BP, Soni S, Doval DC. Miliary Brain Metastasis—A Rare Pattern of Metastases from Breast Cancer. *South Asian J Cancer* 2020;9(3):188–189.

DOI <https://doi.org/10.1055/s-0041-1723106> ISSN 2278-330X.

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Thieme Medical and Scientific Publishers Private Ltd A-12, Second Floor, Sector -2, NOIDA -201301, India

Financial Support and Sponsorship

Nil.

Conflicts of Interest

There are no conflicts of interest.

Acknowledgment

This study was supported by the Rajiv Gandhi Cancer Institute and Research Centre, New Delhi.

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