

## Carcinoma of male breast presenting with cranial and spinal secondaries

Sir,

Male breast cancer is an uncommon disease and account for < 1% of breast cancers; development of brain metastases in male breast cancer is a rarity.<sup>[1,2]</sup> We report a case of lymph node positive male breast cancer who had cranial and spinal metastases.

In June 2013, a 45-year-old right handed male presented to us with the complaints of headache and vomiting. Patient was conscious and had left sided weakness (power 4/5) on examination, fundus being unremarkable. In the year 2010, patient had a breast lump for which fine-needle aspiration cytology was carried out, which was positive for malignancy. Patient was treated with neo-adjuvant chemotherapy which was followed by modified radical mastectomy. Axillary nodes were cleared as well. Tumor stage was T3 Pn2AM0, stage III estrogen receptor, progesterone receptor positive. Histopathology report was suggestive of infiltrating ductal carcinoma Grade III. Axillary lymph Nodes were positive. Patient was given adjuvant radiotherapy and was started tamoxifen and remained asymptomatic. On work-up computed tomography and magnetic resonance imaging brain revealed an ill-defined heterogeneous contrast enhancing mass in right frontal parafalcine region with significant perilesional edema, suggestive of metastases. Patient also had backache, for which his spine was screened which revealed multiple osteolytic metastases involving L1 and L5 vertebral bodies/sacrum/both ilia/greater trochanter of the left femur [Figures 1 and 2].



**Figure 1:** Pre-operative magnetic resonance imaging brain with contrast showing metastatic lesion in right frontal lobe

Patient underwent right frontal craniotomy. Tumor was dural based, firm and vascular and attached to falx. Arachnoid plane was dissected around the tumor and the tumor was resected in-toto. Intra-operative frozen section report was suggestive of metastases from epithelial malignancy. Patient recovered well and was relieved of his symptoms. Post-operative scan was satisfactory and final histopathology report confirmed metastases of duct carcinoma of the breast. Patient has been advised whole brain radiation therapy (WBRT) and to continue tamoxifen and is on our regular follow-up. [Figures 2 and 3].

Brain metastases occur late in the course of the disease; average time between detection of disease and development of brain metastases is 3 years. In the absence of large scale studies, brain metastases from metastatic breast cancer are treated on same guidelines as female breast cancer; surgical excision/decompression for large/single accessible metastases and WBRT for multiple metastases/un-resectable metastases;<sup>[1,3]</sup> Radiosurgery for the selected group of patients, supplemented with systemic chemotherapy for every patient. Surgical resection whenever feasible offers best option as it rapidly relieves symptoms of raised intracranial pressure, offers long-term local control and abolishes the source of edema.

All breast cancer patients are screened for hormone receptor status as well as for human epidermal growth factor receptor 2 (HER2)/neu. Trastuzumab alone is



**Figure 2:** Computed tomography Dorso-Lumbar spine showing spinal metastasis



**Figure 3:** Post-operative computed tomography brain with contrast showing complete excision of lesion

known to have a response rate of 19-26% in patients with over-expression of HER2/neu.<sup>[4]</sup>

Literature yielded very few reports describing treatment of brain metastases in male breast cancer patients. With increased general awareness about male breast cancer and with advances made in molecular biology and availability of recent novel treatment options, overall survival is expected to rise and so is the incidence of brain metastases. This letter is sent to serve a gentle

reminder to remember breast as a source of metastases in male patients.

**Jasmit Paramjit Singh, H. Kharosekar,  
Vernon L. Velho**

Department of Neurosurgery, Grant Medical College and  
Sir J J Group of Hospital, Mumbai, Maharashtra, India  
E-mail: jasmeetthukral80@gmail.com

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