

Recurrence Developing 21 Years after Treatment of Breast Cancer

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Abstract

Background: Breast cancer is a very common cancer among females. In which most recurrence (around 75%) occurs within the initial 5 years after diagnosis, especially within 3 years. Recurrence after 20 years is very less reported in the last few decades. **Case Information:** We are presenting a case of a 67-year old female patient presented with pleural based nodules suggestive of lung metastasis followed by brain metastasis. After reviewing history we came to know that the patient was a previously treated case of breast carcinoma treated 22 years back with mastectomy. **Conclusion:** We report late recurrence of breast cancer occurring 21 years after mastectomy suggesting that possibility of recurrence in carcinoma breast with 21-years latency period although rare should be taken into consideration when making decisions regarding patients who may need long term follow up.

Keywords : Breast cancer, Late recurrence, Pleural based nodules

Introduction:

Understanding risk of recurrence ten or more years after primary diagnosis will help delineate patients who may be candidates for prolonged follow-up.^(1,2) A Danish study showed a cumulative incidence of local recurrence of 15%, distant metastases 21%, 20years after diagnosis among 1847 patients treated with breast-conserving surgery during 1989-1999.⁽²⁾

Case report:

A 67 year old postmenopausal female presented with chief complaints of right limb weakness, headache with constipation for 6 days in August 2021. There was no associated complaint of fever, seizures, or loss of consciousness. On taking detailed history, she was a known case of carcinoma of the left breast ER; PR negative HER-2-neu positive diagnosed and treated 22 years before. She had undergone modified radical mastectomy 5 cycle CMF (5-FU, methotrexate and endoxan) chemotherapy treatment for the same.

Patient did not receive any adjuvant radiotherapy. The patient was started on tablet tamoxifen and continued the same till 5 years. Patient was then lost to follow up for two years and presented back to our Institute in August 2008 after which the patient was kept under observation. Patient then presented with a complaint of right sided chest pain in August 2020. CT scan of September 2020 showed recurrent lesion involving left anterior chest wall, precarinal node, upper para aortic node with bilateral lung metastases and bone metastasis.

IHC of CT guided lung biopsy was suggestive of metastatic ductal carcinoma. (GATA - 3 +ve) with ER +ve, PR -ve and Her 2 neu negative.

CT guided lung bx showed poorly differentiated carcinoma with IHC showing Metastatic Ductal Carcinoma. Patient received 3 cycles of paclitaxel. Patient was kept on letrozole for one year. Patient presented to us with right upper limb weakness. On examination, the patient was semiconscious and disoriented with power 1 out of 5 in all limbs except 4 out of 5 in the left upper limb with decreased sensation with constipation for 6 days. Routine blood investigations were normal. NCCT of the brain was suggestive of 24x13 mm left occipital metastasis. CT scan showed residual lesion and D9 vertebrae

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metastasis with lesion involving left high parietal region, left occipital region.

Patient was referred to the department of radiation oncology for palliative whole brain radiation therapy (WBRT). The patient was planned for palliative WBRT of a dose schedule of 3000 cGy in 10 fractions at 3 Gy per fraction 5 fractions per week for 2 weeks through two parallel opposed fields. However, the patient took discharge against medical advice without starting whole brain radiotherapy.

Discussion:

Clinical course of breast cancer is seen as being more of a chronic nature. where survival curves start to parallel that of the general population after 10 to 25 years. In breast cancer we can not define a period after which a patient can be considered cured as it is seen with curable acute malignancies.^(3,4) In breast carcinoma, late relapses are observed frequently⁵. Statistical cure is considered when survival curve of patients becomes parallel to the survival curve of the general population.^(2, 3, 4) Higher-risk breast cancer groups achieve statistical cure earlier (10–15 years after diagnosis) than lower-risk groups (20–25 years after diagnosis) as seen with survival curves of patients with more advanced breast cancer starting to parallel the survival curves of the general population earlier than that of the earlier stage breast cancers.

According to a study by Rikke Nørgaard Pedersen et al. recurrences continued to occur up to 32 years after

Primary diagnosis.⁽¹⁾ Women with large tumor size, higher lymph node burden and ER-Positive tumors had increased risk of late recurrence.⁽¹⁾

Even though the statistics of these patients of carcinoma breast shows that long term disease free survival can be achieved with adequate treatment in early stages it remains in question after how many years of disease free survival we can guarantee that the patient will have 0% chances of relapse.

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