Role of holistic treatment approach in the management of Metastatic HER2 Positive Breast Carcinoma

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Background

HER2-positive breast cancer accounts for 15–20% of breast carcinomas and is associated with aggressive biology and high risk of early metastasis. Trastuzumab and other HER2-targeted therapies have transformed survival outcomes, yet these benefits depend heavily on early treatment initiation, compliance, and multidisciplinary management.1 While tumor biology is a key determinant of prognosis, psychosocial factors—such as patient acceptance of the diagnosis, family support, and socioeconomic resources—play a critical role in treatment adherence and survival.2 Rapid progression from early-stage to advanced disease is particularly challenging for patient adaptation and often leads to disengagement from care. We report a young woman with HER2-positive breast carcinoma who experienced rapid progression from Stage I to diffuse osseous and visceral metastases within one year of diagnosis, compounded by poor psychosocial support and limited treatment access.

Case Presentation

A 35-year-old woman with IDDM presented in Nov 2020 with a right breast mass. Mastectomy with SLNB showed invasive ductal carcinoma grade II with high-grade DCIS (pT1a pN0 [sn], ER 10–20%, PR-negative, HER2-negative). She began adjuvant tamoxifen; no chemo/radiation was indicated. In Apr 2021 she developed persistent lumbosacral pain. MRI/CT revealed diffuse osseous metastases and nodal disease; iliac biopsy showed metastatic ER/PR-negative, HER2-positive carcinoma (receptor discordance). Because trastuzumab was initially unaffordable, she received six cycles of AC with G-CSF and zoledronic acid (to Oct 2021). This course was complicated by DKA, febrile neutropenia, abscess, and AKI, exacerbated by psychosocial stress and poor adherence; holistic and psychosocial support were provided. Performance status recovered to ECOG 0 with stable disease. Progression in Aug 2021 prompted capecitabine (dose-reduced), then capecitabine + trastuzumab (Oct 2021–May 2022). T-DM1 was advised but initially unaffordable; she received paclitaxel + trastuzumab, then T-DM1 (Jul 2022–Jan 2023). Further progression with worsening lymphangitis led to paclitaxel + trastuzumab (Feb 2023–Mar 2024) with good interim response, followed by progression on PET (Mar 2024). She then received lapatinib + trastuzumab (Mar 2024–Feb 2025). PET in Jan 2025 showed overall stability with subtle pulmonary changes. Recurrent LRTIs, diabetic foot, and PVD were managed multidisciplinary. In Feb 2025 she presented with worsening dyspnoea, hypoxia, oedema, crepitations, hyperglycaemia, and ECOG decline to 2–3. Despite supportive care, she developed respiratory failure and died on Mar 3, 2025. Notably, she maintained good performance status and continued teaching until two weeks before death.

Conclusion

This case underscores how access to HER2-targeted therapy and psychosocial support can significantly improve outcomes and quality of life in aggressive HER2-positive metastatic breast cancer.

Histopathology and Radiology

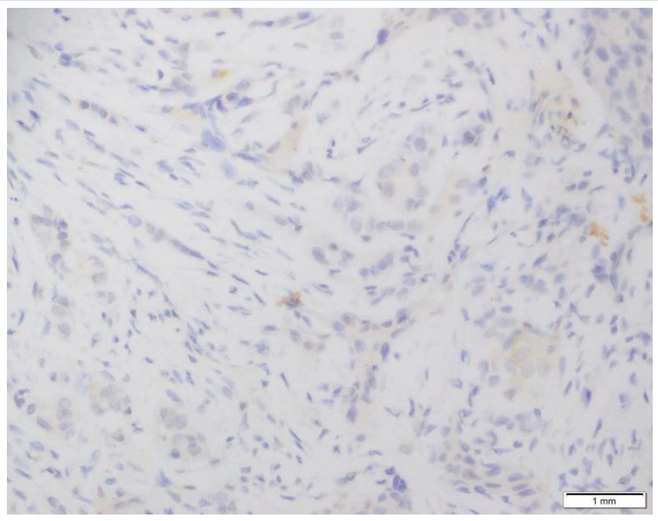

Figure 1: Histopathology

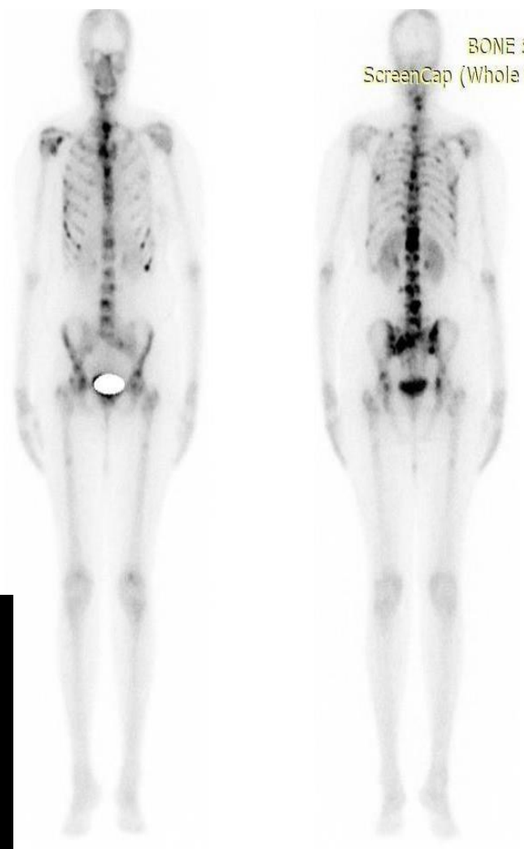

Figure 2: Bone Scan & PET CT

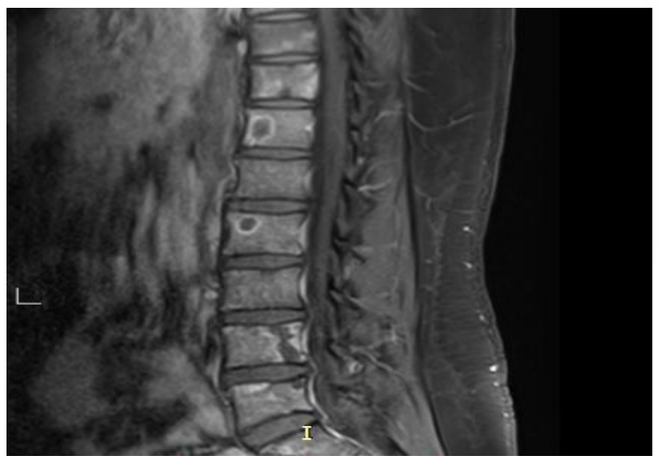

Figure 3: MRI

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