

Treatment of Metastatic Her2Neu+ Breast Cancer with Oligoprogressive Disease

Sarah Pelton, Jinan Ayub, Taylor Kenyon, Muskaan Ramchandani, Erin Newton, M.D.

Background Information: In treating metastatic Her2Neu+ breast cancer, trastuzumab-based chemotherapy regimens typically result in fairly durable tumor control. Historically, when there was any disease progression, the systemic therapy was changed, but it has recently been recognized that “oligoprogressive disease” (when only a limited number of metastatic sites progress) might be approached differently. This heterogeneous response to treatment is due to variation in tumor cell phenotypes, which confer drug resistance. Oligoprogressive disease is often treated with local therapy, such as stereotactic body radiotherapy (SBRT), or resection, and determination of optimal treatment regimens remains a challenge.

Case Description: We report a case of a 37-year-old, premenopausal female with locally advanced, Her2Neu+ right breast cancer with de novo metastases to the liver and bone. First line systemic therapy was well-tolerated and resulted in disease control. Unfortunately, she had symptomatic progression in her primary breast tumor, which was treated with mastectomy while continuing the same systemic therapy. Later, she developed a painful, right infraclavicular metastasis; surgical resection was ultimately declined due to local edema and the tumor’s proximity to significant neurovasculature. She elected to receive palliative radiation therapy for pain control via SBRT, and her systemic therapy remained unchanged. Currently, she shows no signs of progression and continues to have excellent tolerance of her systemic therapy.

Clinical Significance: Oligoprogression is a clinically significant concept for numerous cancers, but the best methods of control have not been elucidated. This case contributes to the limited knowledge base as an example of treating Her2Neu+ breast cancer-associated oligoprogressive disease with local therapy.

Conclusion: The treatment approach in this case helps to define best practices for treatment of Her2Neu+ breast cancer-associated oligoprogressive disease.