CLINICAL VIGNETTE

Metastatic Breast Cancer: A Hypermetabolic Splenic Mass

Evangelia Kirimis, M.D.

A 68-year-old female presented for her screening mammogram. She had no history of abnormal mammograms, but this time was found to have a right-sided breast abnormality. Biopsy was consistent with a hormone-positive, human epidermal receptor 2 (HER2)-negative invasive ductal carcinoma. Breast magnetic resonance imaging confirmed the sole breast lesion; however, it also demonstrated abnormal lesions in the sternum consistent with bone metastases. Positron Emission Tomography/Computed tomography (PET/CT) demonstrated small lesions throughout the thoracic spine and pelvis. All lesions were too small for biopsy. Given her metastatic disease, she was treated with various endocrine therapies over the subsequent years (aromatase inhibitor, tamoxifen, fulvestrant) with good control of the cancer. Her bone disease was never large enough for biopsy. Several years into her treatment, she was noted to have a hypermetabolic splenic lesion that continued to grow on serial imaging despite fairly stable disease in the bones. An attempt at biopsy was non-diagnostic. She was continued on endocrine therapy. The spleen continued to grow in size, multiple lesions eventually developed, and with time, the hypermetabolic lesions became more diffuse and confluent. Over the course of changes in the spleen, the patient also had worsening cytopenias. Bone marrow biopsy was consistent with a mildly hypocellular marrow (~30% cellularity) of unclear etiology, but no malignancy was present. The cytopenias worsened to eventual white blood cell counts below 2, absolute neutrophil count 200, hemoglobin 9.2, and platelets of 29. She did respond well to filgrastim and proceeded with splenectomy. Pathology showed vascular congestion of the spleen, increase in hemophagocytic histiocytes, and no evidence of lymphoproliferative disease or metastatic carcinoma. Immediately post-operatively, all her blood counts steadily rose and within a couple weeks had all normalized.

Splenectomy becomes imperative to direct future therapy. Thus, splenectomy became imperative to direct future therapy. It was especially important since her cytopenias posed an issue for future oncologic management. Review of the literature revealed a similar presentation of a woman with breast cancer treated curatively years prior with incidental finding of a splenic lesion. Initial biopsy attempts were unsuccessful, but eventually showed features similar to the case above, including vascular congestion, fibrosis, and numerous histiocytes, which was consistent with a diagnosis of SANT. While a diagnosis of SANT was not made by the local pathologist in the case reported here, the pathologic features are consistent with the prior case descriptions, most notably the features of vascular congestion and histiocytosis. SANT is still a relatively unknown entity, and thus, most centers may still not be familiar with this process in order to make the diagnosis.

REFERENCES

