Case Report of Histiocytoid Invasive Lobular Carcinoma

Rebecca Breese, MD, Kara Friend, MD
Department of Surgery, Eastern Virginia Medical School

Introduction

The histiocytoid variant of invasive lobular carcinoma (ILC) is a rare subtype of breast cancer first described by Hood et al in 1973 [1]. In a study looking at the different variants of ILC, it was grouped with signet ring cell and apocrine subtypes to form less than 13% of all ILC cases [2]. It is frequently diagnosed after the disease has metastasized[1], and when metastases are identified first it can make the diagnosis challenging, as they are often mistaken as benign sinus histiocytes and xanthomatous dermal lesions [3]. When biopsied in the breast by a core needle biopsy or fine needle aspiration, it can often be misdiagnosed as benign disease such as histiocytic inflammatory reaction, fat necrosis, and granular cell tumor [3]. Most data available about this variant comes from limited case series and case reports. This report describes a case of a 6-centimeter ILC of the histiocytoid subtype.

Case Report

A 66-year-old female presented to clinic with a left breast mass that she first noticed one year ago. At that time, imaging was negative for a mass and she was told it was dense breast tissue. It continued to grow, and on presentation she had a palpable mass with axillary lymphadenopathy. Repeat mammography showed an obscure stellate mass with skin thickening. Ultrasound revealed a large hypoechoic mass-like area with unclear margins, approximately 6 x 5 cm, with several prominent lymph nodes. Biopsies were performed, and she was found to have triple negative invasive lobular carcinoma, histiocytoid variant, in both the breast mass and lymph node. On metastatic workup, she was found to have axillary adenopathy in all three levels, as well as a supraclavicular lymph node, and a biopsy confirmed metastasis to her L3 vertebra. She was staged as cT4N3M1. She was started on pembrolizumab, gemcitabine, and carboplatin. Repeat imaging showed a decrease in her left breast lesion and lymph nodes, however, she had developed multiple new lesions to her spine, rib, and femur.

Figure 1 – Breast Mass on Ultrasound and Mammogram

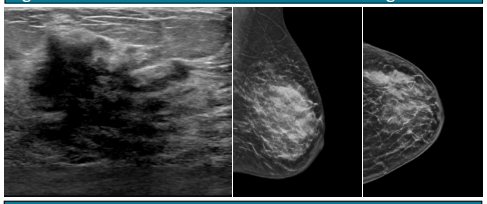


Figure 2 – Lymphadenopathy on Ultrasound and CT

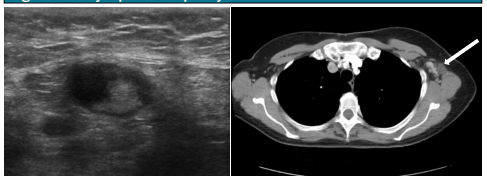
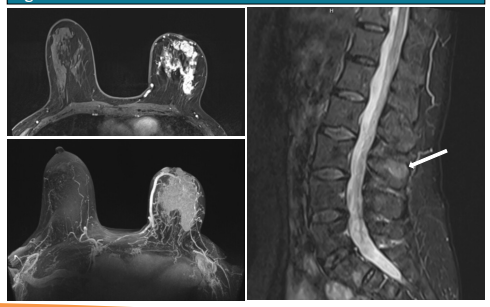


Figure 3 – Breast and Lumbar MRI



Discussion

Most reports on the histiocytoid variant of ILC focus on the pathology of this tumor, as it can be challenging to diagnose [3]. Very few reports provide recommendations on how to treat this variant of breast cancer. A combination of wide local excision, mastectomy, sentinel lymph node biopsy, chemotherapy, radiation therapy, and immunotherapy have all been reported. Studies have also found that atypical variants of ILC are more likely to develop metastases and have shorter disease-free survival [2]. This aggressive nature, and its distinct immunohistochemical pattern, have prompted some to suggest that the histiocytoid variant may be a distinct type of breast cancer [4].

Conclusion

In conclusion, the histiocytoid variant of ILC is a rare subtype of breast cancer that can be challenging to diagnose. This case highlights the aggressive nature of this variant, which progressed while on immunotherapy and chemotherapy.

References

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Contact Information

Eastern Virginia Medical School, Dept of Surgery
825 Fairfax Avenue, Suite 610
Norfolk, VA 23507
T: 757-446-8960
E: breesero@evms.edu