

# Exemestane for Locally Advanced Breast Cancer: A Case Report

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## Abstract

The clinical management of patients with locally advanced inoperable breast cancer at presentation consists of combined modality treatment, most commonly using initial systemic chemotherapy, then locoregional treatment (generally mastectomy with post-mastectomy radiation treatment), often followed by systemic chemotherapy. Initial systemic chemotherapy is used to address the high risk of these patients for metastatic disease, to attempt to convert an inoperable presentation to an operable state for successful local regional treatment, and to assess in vivo the clinical response to chemotherapy. We report an unusual case of locally advanced intact bilateral breast cancer which not only responded well to Exemestane alone but also survived for five years.

## INTRODUCTION

Locally advanced breast cancer refers to a diverse and heterogeneous group of breast cancer, represents only 2%-5% of all breast cancers in the United States and is rapidly decreasing in this country with screening programs. In India, however, advanced breast cancer is much more common and is reported in up to over 30% of all breast cancer patients in our hospitals. Patients with these cancers include those with operable disease at presentation (stage T3N0 to N1M0), inoperable disease at presentation (T4 or N2 to N3 M0 or both). The management of patients with locally advanced breast cancer (LABC) requires the integration of preoperative (neoadjuvant) chemotherapy and subsequent treatment by surgery or radiotherapy or both, aimed at elimination of residual local disease [1]. This combined modality approach to treatment may be applied with the aim of using the initial chemotherapy to enable a more conservative approach to local control or alternatively, it may be felt that the prime function of the cytotoxic drugs is to eliminate occult distant metastases at a time when resistant clones have not yet emerged. The elements of treatment which are used after initial neoadjuvant chemotherapy should therefore include adequate surgical resection of the primary tumor and regional lymph nodes regardless of the clinical indications of tumor response, together with regional radiotherapy to residual areas at risk of involvement. On the basis of the findings of the pathological appraisal of the surgically resected specimen,

an assessment can be made of the need for subsequent adjuvant chemotherapy to further reduce the risks of recurrence. We report an unusual case of locally advanced inoperable intact bilateral breast cancer which responded well to Exemestane alone.

## CASE HISTORY

A 65-year-old non diabetic female patient presented to us in the year 2001 with complaints of bilateral lumps of the breasts since 4 months, ulceration of overlying skin for 2 months and a continuously increasing right axillary lump for 2 months. On physical examination, hard ulcerative growths of sizes 7 x 4cm (right) and 13 x 9cm (left) involving both breasts (fig 1.) and some part of the anterior chest wall on left side were detected. The growths were fixed to the chest wall. In the right axilla there was a 4 x 3cm firm, mobile lymph node (fig 1).

**Figure 1**

Figure 1: Breast lesions (before treatment).



Systemic examination was within normal limits. The histopathological examination of both lumps revealed infiltrative ductal carcinoma but, to our surprise, the nature of the axillary lump was benign. Ultrasonogram of the abdomen and chest x-ray yielded no abnormal findings. ER/PR receptors were positive in both lesions with a score of 60 percent. The patient did not give consent for surgery or neoadjuvant chemotherapy and was therefore advised Exemestane 25mg PO. After a treatment of 4 months the ulcerative growth healed almost completely (fig 2).

**Figure 2**

Figure 2: Breast lesions (after treatment).



Local excision of the right axillary lump was performed because of its progressive nature and the histopathological report once again came out to be benign. The patient continued to receive Exemestane daily and survived for approximately 5 years.

## DISCUSSION

In patients with locally advanced technically operable cancer (IIIA), total or radical mastectomy has been the therapeutic method of choice for decades while with technically

inoperable cancer (IIIB), the method of choice was radiotherapy with subsequent mastectomy. This approach has had no effect on the 5-year survival rates, and it has not been until the advent of primary chemotherapy that the outcome has improved. There is no doubt that the main problem of locally advanced cancer (in addition to the primary tumor per se) is the presence of the micrometastases that may have formed months, or years, before presentation. As a result, systemic chemotherapy combined with locoregional methods seems to be the most effective approach. Neoadjuvant, i.e. primary chemotherapy, is intended to reduce the primary tumor and/or nodes (downstaging), improve operability, and allow consideration of breast-sparing operations (lumpectomy, segmentectomy, quadrantectomy), i.e. conservative surgical procedures. Another goal of primary chemotherapy is to destroy presumed and objectively undetectable micrometastases, while the ultimate intention, in addition to sparing the breast, is to extend the tumor-free interval and overall survival [2]. The results of primary chemotherapy (CMF, FAC, and FEC regimens) published by the Milan group [3,4,5] and by other authors [6,7,8] have established the activity of this approach, and the results of treatment of advanced breast cancer using vinorelbine-based combination therapy, even as first-line therapy [9,10,11] are also known. Logically, a cytotoxic agent effective in disseminated disease will also be effective in locally advanced disease with anticipated micrometastases. As a result, just as other authors transferred combination regimens (CMF, FAC, FEC) found to be effective and tested as adjuvant therapy and in disseminated cancer to primary therapy, we used the VEM regimen in the same indication (i.e. primary therapy).

This report is exceptional in the sense that the patient did not receive any primary treatment modality in the form of downstage chemotherapy or surgery and the tumor not only responded well to exemestane alone but the patient survived for almost five years with intact breast cancer.

## CONCLUSION

This case is being reported here to unmask some hidden observations such as the encouraging response of locally advanced breast cancer to exemestane alone. This case report highlights the potential of endocrine therapy. No such case has been reported in the literature in which locally advanced intact breast cancer not only responded well to exemestane alone but the patient remained alive for almost 5 years.

Locally advanced cancer patients, especially if ER/PR positive, can be kept on aromatase inhibitor alone, and a few may respond dramatically as illustrated in this example. Though numerous studies have been done to identify the role of exemestane in locally advanced breast cancer, this case report emphasizes the further need to study the effect of hormone therapy.

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