Case report

Case report of Locally Advanced Breast Cancer in a 53-Year-Old Women: Diagnosis and Treatment Approach

ABSTRACT:

Breast cancer has become the most prevalent cancer among all types of cancer in India, and it poses a serious health concern among women. Locally advanced breast cancer (LABC) and advanced breast cancer collectively represent over 70 percent of all cases of breast cancer. In this case report, we presented a 52-year-old female with no significant medical history apart from type II diabetes mellitus who suddenly discovered a lump in her left breast. Initially, the lump was 2 x 1 cm and had progressed to 4 x 3 cm in the left breast. Therefore, she was started with paclitaxel neoadjuvant chemotherapy. Following this, she had undergone left-modified radical mastectomy surgery and was recovering well.

KEYWORDS: Locally advanced breast cancer, radical mastectomy, multidisciplinary treatment approach, neoadjuvant chemotherapy.

1. INTRODUCTION

Locally advanced breast cancer (LABC) is a rare phenomenon that represents around 5% of the newly diagnosed breast cancer population in some less affluent countries [1]. Since there is no universally agreed definition as of now, widespread controversy and disagreement arise over it. Therefore, various spectrums of presentation have emerged to define LABC under a single criterion. According to the recent guidelines from the U.S. National Comprehensive Cancer Network, LABC is defined as AJCC stage III breast cancer in the absence of distant metastases. Furthermore, LABC is further divided into ‘Operable’ and ‘Non-operable’ based on the probability of achieving the negative outcome based on histopathological examination [2]. In India, compared to any other cancer, breast cancer patients will come for the check-up in the hospital lately, where around 60% of the patients will already have developed stage III or IV breast cancer. Among which 25% of them could be with LABC along with a fungating breast lesion, which can cause significant distress on patients and family members [3]. Since long time, LABC patients have been treated with radical surgery and radiation therapy.

However, since the past two decades, chemotherapy treatment has become one of the most important treatment protocols for the management of LABC [4]. Chemotherapy alone or along with anti-human epidermal growth factor receptor type 2 (HER2) could be a feasible treatment approach for the patient with triple negative HER2 type locally advanced breast cancer [5]. We report here a case of locally advanced left breast cancer that was successfully treated with a multidisciplinary treatment approach consisting of chemotherapy and surgery.

2. CASE PRESENTATION

53-year-old women with no family history of cancer presented due to a self-palpable breast lump. She was apparently well 12 months ago. Later she noticed a lump in the left breast, which was insidious in onset and gradually progressive. Initially, the lump measured 2 x 1 cm, but it progressed to 4 x 3 cm in the left breast (c T2 N0 M0). The lump was palpable in the retroareolar region from the 2-4 oclock position in the upper outer quadrant, along with a 1x1 cm mobile lymph node palpable in the left pectoral group before chemotherapy (Fig. ***1***). Therefore, she was started with neo-adjuvant chemotherapy (dose dense AC/2 weekly x 4 cycle) followed by 12 cycles of weekly paclitaxel, IHC-ER +, PR -, HER2Neu +. Patient completed the neoadjuvant chemotherapy successfully. She was suffering from type 2 diabetes mellitus for one year and on regular medication and attained menopause four years ago. Local examination shows there was no tenderness, no rise in temperature, NAC: normal, and there was no nipple discharge. She was prescribed IV fluids: Inj Xone 1 gm 1-0-1 x 3 days; Inj Pan 40 mg 1-0-1; Inj Emeset 1-1-1; Inj Perinorm 10 mg 1-0-1; and Inj Human Actrapid Insulin. Tab sompraz p/o 1-0-1, Tab limce 500 mg p/o 1-0-1, Tab glycomet 500 mg 1-0-1, and Tab cobadex CZS 1-0-0. As there was a partial response to chemotherapy, the patient underwent left modified radical mastectomy surgery. Under general anesthesia, an elliptical modified Stewart incision is taken over the left breast, including the tumor and nipple aerolar complex. Flaps raised superiorly up to the clavicle, inferiorly up to the inframammary crease, medially up to the lateral border of the sternum, and laterally up to the anterior border of the latissimus dorsi muscle. Mastectomy is completed by excising the breast tissue along with the pectoral fascia. Axillary dissection done up to level II. Homeostasis was achieved, and the drain was kept in the pectoral region and axilla. The patient tolerated the surgery well and shifted to the postoperative ward following surgery. There was no sign of infection in the dressing site and draining site (Fig. ***2***). Therefore, the patient was discharged from the hospital. Since the patient had undergone mastectomy surgery, follow-up will be done.

Fig. 1. Lump site in the left breast

Fig. 2. LMRM post-surgical site

3. DISCUSSION

Despite the advancement of breast cancer screening and treatment, breast cancer management remains a critical challenge for the patient and also for healthcare personnel, as LABC can cause relapse and even death. As there are no consistent, definitive treatment and evidence-based guidelines Mostly the treatment decision is made of tumor size, type, HER_2 grade, hormone receptor status, lymph node invasion, and the present or absent of metastasis [6]. Breast cancer treatment is evolving. In most of the cancer centers in India for LABC, preoperative chemotherapy is preferred before the definitive surgery. However, in the west, preferred management is surgery and adjuvant chemotherapy [7]. Neoadjuvant chemotherapy can help convert inoperable cases to resectability, therefore increasing the chances of breast conservation therapy, which has been done in a similar previous case report [8]. After the diagnosis of the LABC, the biggest challenge is the diagnosis because at breast cancer stage III there would be a higher chance of metastasis. The most common treatments are surgery, radiation therapy, and chemotherapy. Most of these are done to stop metastasis. For our patient, radical mastectomy has been done after receiving neo-chemotherapy. However, most of the patients will receive single treatment or the combination of the multiple treatment approach. LABC can cause pharmacological resistance along with multidrug resistance syndrome (MDR), which can result in a poor prognosis [9]. However, several other studies have also reported a high response rate to neoadjuvant chemotherapy [10-13]. Despite the improvement of the treatment, only one-third of women are cured. Further advancement of the understanding is needed to properly understand the inflammatory carcinoma [14]. In our patient, there were no signs of infection at the dressing site. As she is prepared for discharge from the hospital, she was advised to take Tab taxim-o 200 mg. 1-0-1 x 5 days, tab Sompraz 40 mg 1-0-1 x 5 days, tab Dolo 650 mg 1-1-1 x 3 days, tab Cobadex CZS 1-0-0 x 1 month, and tab Limcee 500 mg 1-0-1 x 15 days. Furthermore, she was advised to have proper glycemic control along with left upper limb exercises.

4. CONCLUSION

Though LABC is rare, it still poses a significant risk to the patients in terms of optimal treatment. It is important to distinguish biological phenotypes mainly inflammatory breast cancer for appropriate treatment. Although neoadjuvant chemotherapy shows promising results in LABC cases. but a multidisciplinary treatment approach should be taken into consideration for the overall management of such cases.

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ETHICAL APPROVAL:

Ethical approval were taken as per international standards from the patients and also from the concerned authority.

Consent

As per international standards or university standards, patient(s) written consent has been collected and preserved by the author(s).

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