CASE REPORT

Olgu Sunumu

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A Dramatic Surgical Technique for A Mis (Un) diagnosed Breast Cancer: Toilet Mastectomy

Tanısı Konulamayan/Atlanan Meme Kanserinde Dramatik Bir Cerrahi Teknik: Tuvalet Mastektomi

ABSTRACT
Treatment options in metastatic breast cancer are limited, and the general approach is treatment with systemic chemotherapy. However, today, the survival of patients with advanced-stage breast cancer can be extended with targeted therapies. Surgical treatment of the primary tumour called toilet mastectomy is inevitable in cases of bleeding, infection, and advanced breast cancer with skin involvement. This case report is aimed to present the diagnosis and treatment process of a patient with advanced breast cancer who underwent toilet mastectomy.

Key Words:
Breast cancer, Mastectomy, Surgical procedures

ÖZ
Metastatik meme kanserinde tedavi seçenekleri sınırlıdır ve genel yaklaşım sistemik kemoterapi ile tedavidir. Ancak günümüzde ileri evre meme kanserli hastaların yaşam süreleri hedefe yönelik tedaviler ile uzatılabilmektedir. Tuvalet mastektomi adı verilen primer tümörün cerrahi tedavisi, kanamalı, enfeksiyonlu ve deri tutulumu olan ilerlemiş meme kanseri durumlarında kaçınılmazdır. Bu olgu sunumunda ileri evre meme kanserli ve tuvalet mastektomi yapılan bir hastanın tanı ve tedavi sürecinin sunulması amaçlanmaktadır.

Anahtar Kelimeler:
Meme kanseri, Mastektomi, Cerrahi işlemler

INTRODUCTION

Breast cancer is a severe health problem worldwide due to the high estimated number of new cases (at 1st place with 11.7%) and estimated deaths (at 5th place with 6.9%) (1). In the light of the Cancer Statistics 2022 report of Siegel et al., 290.560 new breast cancer cases are expected to be seen in the USA. In addition, the same report also predicted that approximately 43.780 people would die due to breast cancer in the USA (2).

Breast cancer can be detected early due to advanced imaging tools and widespread screening programs. According to screening programs, annual mammography control is recommended for women over 40 (3). With the detection of the disease at an early stage, good oncological outcomes such as more prolonged disease-free survival and longer survival can be obtained. However, in patients diagnosed in the advanced stages, both treatment options are limited, and oncological outcomes are poor.

Breast cancer treatment depends on the stage at diagnosis. Surgery is usually the first type of treatment for breast cancer. Surgery is usually followed by chemotherapy or radiotherapy or, in some cases, hormone or targeted therapies. However, surgical treatment is recommended in the advanced stages after chemotherapy and/or radiotherapy. In the presence of an overgrowth of tumour tissue, invasion of the chest wall, ulceration of the breast skin, discharge or bleeding, toilet mastectomy, which is performed without adhering to oncological principles, is committed to reducing the tumour burden and improving the quality of the patients' life (4).

This case report is aimed to present the diagnosis and treatment process of a patient with advanced breast cancer who underwent toilet mastectomy.

CASE REPORT

A 26-year-old female patient was admitted to the General Surgery Clinic of Erzurum Regional Training and Research Hospital, Erzurum, Turkey, with complaints of pain and swelling in the left breast for 15 months in November 2021. There was no obvious pathology in the ultrasonography (USG) taken at the beginning of her last pregnancy in an external centre. Her complaints have increased in the previous four months. The patient, who did not have a history of any disease in her personal history, has 4 alive children. The patient, whose third-degree relative had a history of breast cancer, gave birth 3 months ago and was in the breastfeeding period. Her ECOG (Eastern Cooperative Oncology Group) scale was 2.

The patient's vital signs were as follows: arterial blood pressure: 125/82 mmHg, pulse rate: 86 beats/min, saturation of 95% (on room air), and fever: 37.1°C. On physical examination, it was observed that there was a tumoral mass of approximately 150x100 mm in size, filling the left breast, producing ulceration and haemorrhagic discharge on the skin (Figure 1).

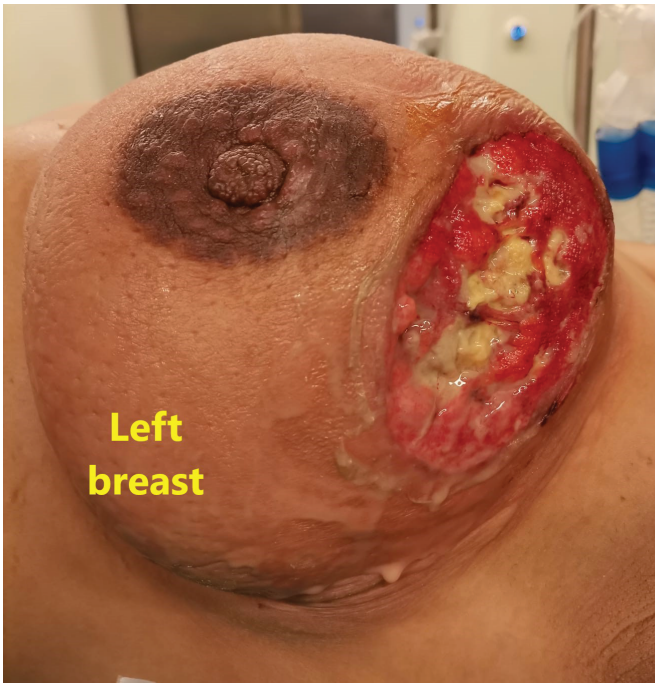


Figure 1. Preoperative image of the tumour.

No pathology was found in the laboratory, except for CA 15-3 elevation (56 U/ml [normal range: 0-30 U/ml]). In the breast USG, there was a solid lesion with the dimensions of 150*100*50 mm, completely covering the left breast, with left axillary conglomerated lymphadenopathy 70 mm in diameter. In the magnetic resonance imaging (MRI) of the breast, there was a multilobulate Breast Imaging Reporting and Data System (BI-RADS) 5 lesion completely covering the left breast with axillary lymphadenopathy (Figure 2).

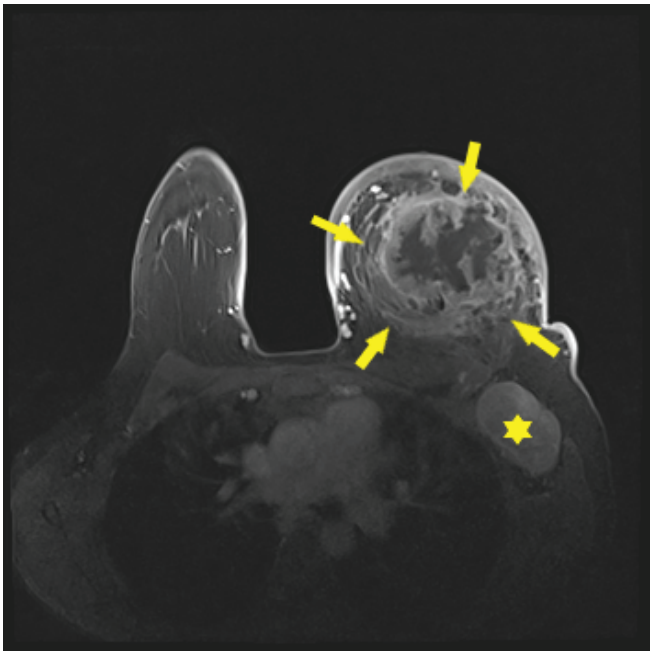
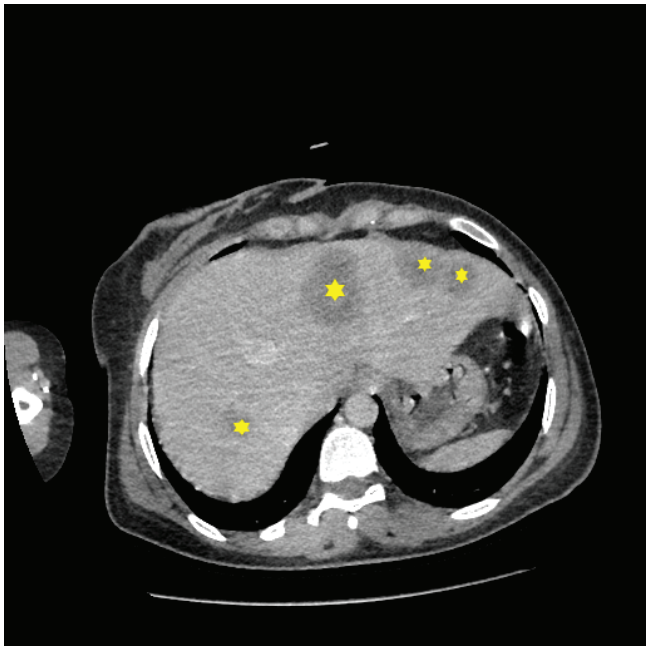
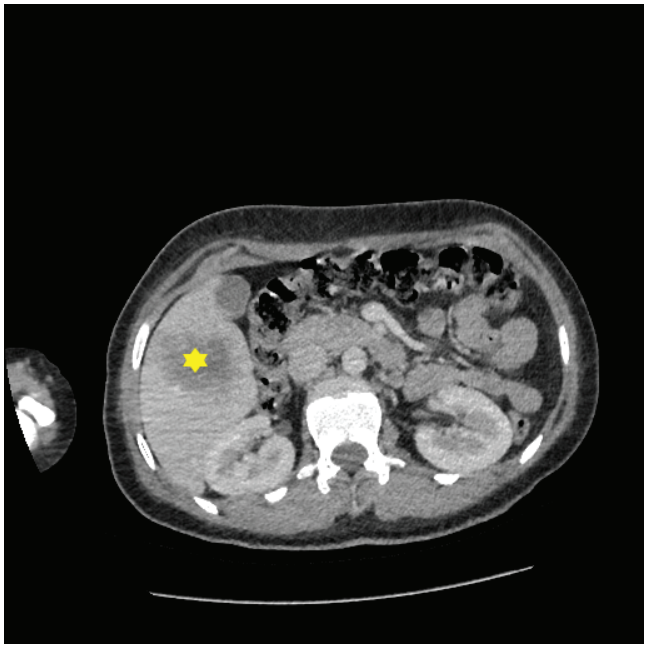


Figure 2. On magnetic resonance imaging, there was a solid mass completely covering the left breast with axillary lymphadenopathy (yellow arrows show the tumoral mass, and the yellow asterisk indicates the axillary lymphadenopathy).

In positron emission tomography / computed tomography (PET/CT), there were multiple lymph nodes in both axillary regions, with the primary focus covering the left breast completely. In addition, many metastatic lymph nodes in the mediastinal and abdominal cavity and multiple metastatic foci in the liver were observed (Figures 3 and 4).





Figures 3 and 4. Yellow asterisks indicated multiple liver metastatic foci on PET/CT scan.

Trucut biopsy material taken from the mass was compatible with carcinoma infiltration. Toilet mastectomy was performed because the patient had ulceration, pain, discharge or bleeding lesion on the breast skin. The patient was followed up in the service, and oral feeding was regained at the postoperative 6th hour. The patient was discharged on the 5th postoperative day without complications.

On pathological examination of mastectomy material, the specimen was consistent with invasive breast carcinoma (NOS=not otherwise specified) with a diameter of 120 mm, including diffuse necrosis and perineural and lymphovascular invasion. Oestrogen receptors, progesterone receptors and CERBB2 receptors are negative in immunohistochemical evaluation. Ki-67 proliferation index of the tumour was over 90%. According to the Modified Scarff Bloom Richardson Grading System, the cancer is eligible for a poorly differentiated high-grade tumour with a score of 8 (tubule formation=2, nuclear pleomorphism=3, mitotic figures=3).

Due to pathological evaluation and tumour staging with PET-CT, adjuvant chemotherapy was started. On a PET-CT scan taken after 6 courses of adjuvant chemotherapy, in the left breast operation site, a new tumoral lesion (SUDmax=3.2) adjacent to the pectoral muscle, multiple lymph nodes with increased metabolism in the left axillary region (SUDmax=16) and metastatic lesions with growing size and increased metabolism in both lobes of the liver (SUDmax=15.6) were detected (progressive disease). The patient is in the 8th month postoperatively and is currently being followed up with carboplatin therapy.

DISCUSSION

Breast cancer is a severe health problem worldwide due to the high estimated number of new cases and deaths. In the light of the Globocan 2020 report, 24.175 new breast cancer cases were seen in Turkey. In addition, the same report showed that 7.161 people died from breast cancer in Turkey (1). Although the incidence of breast cancer is increasing in Turkey, most patients are diagnosed at advanced stages. In the study of Ozmen et al., which included 20.000 breast cancer patients, most patients were identified as Stage II with 48.3%, while Stage IV was detected in 4% (5).

The critical measurement methods for effective cancer treatment, regardless of cancer type, are the 5- and 10-year survival rates. In developed countries, 5- and 10-year survival rates for breast cancer are given as 91% and 84% (6). Although the biological behaviour of breast cancer is better than other organ cancers, the 5-year survival rate in the case of distant metastasis falls below 30% (7).

The traditional approach is a systemic treatment in patients with Stage IV breast cancer at the time of diagnosis, and surgery has a minimal place in the treatment. Surgery is often performed in uncontrolled local disease, symptomatic cases such as bleeding, ulceration, and infection, and only for palliative purposes and is called “toilet mastectomy or salvage mastectomy” (8). It is a

fact that toilet mastectomy is needed in almost 4% of breast cancer patients in developing countries because of the symptoms caused by advanced breast cancer due to the delay in the initial diagnosis (9). In the last 20 years, with promising results for the survival of patients who underwent surgery for the primary tumour in stage IV breast cancer, this traditional approach has been questioned and changed gradually. To the "American College of Surgeons National Cancer Database", between 1990 and 1993, 57.2% of the 16.023 metastatic breast cancer patients underwent surgical treatment for the primary tumour, and the 3-year survival was found to be 24.9%, regardless of surgical margins. The survival rate was 26.9% in those who underwent partial mastectomy with negative surgical margins, while the survival rate was 31.9% in those who underwent total mastectomy (10). In a retrospective study conducted by Fields et al., the effect of surgery on long-term survival in the treatment of 409 patients diagnosed with Stage IV breast cancer was examined, and no statistically significant difference was found in the effect of surgery on progression-free survival. However, in the multivariate analysis, survival was found to be longer in the surgical group compared to the non-surgical group (31.9 months and 15.4 months, respectively) (11). Some evidence suggests that palliative mastectomy may prolong life, but this is inconclusive (12). Conversely, there is evidence to suggest that palliative toilet mastectomy should be replaced by combined chemotherapy and radiotherapy, limiting the surgical procedure to cases in which a negative margin can be saved. Still, these are also inconclusive (13).

CONCLUSION

Toilet mastectomy or salvage mastectomy is a surgical method that should always be considered in advanced breast cancer cases with skin involvement (infection and/or bleeding). Although there is not enough data on its effect on survival, it remains a method accepted by patients and surgeons due to the reduction of tumour size, easier tumour control and positive cosmetic results.

Informed Consent:
The patient's rights were protected, and written informed consent was obtained from the patient before the procedures according to the Helsinki Declaration.

Conflict of Interest:
The authors have no conflict of interest to declare.

Financial Disclosure:
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REFERENCES

1. Sung H, Ferlay J, Siegel RL, Laversanne M, Soerjomataram I, Jemal A, Bray F. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA Cancer J Clin 2021;71(3):209-49.

2. Siegel RL, Miller KD, Fuchs HE, Jemal A. Cancer statistics, 2022. CA Cancer J Clin 2022;72(1):7-33.

3. Schünemann HJ, Lerda D, Quinn C, Follman M, Alonso-Coello P, Rossi PG, Lebeau A, Nystrom L, Broeders M, Ioannidou-Mouzaka L, Duffy SW, Borisch B, Fitzpatrick F, Hofvind S, Castells X, Giordano L, Canelo-Aybar C, Warman S, Mansel R, Sardanelli F, Parmelli E, Grawinghold A, Saz-Parkinson Z. Breast cancer screening and diagnosis: a synopsis of the European Breast Guidelines. Ann Intern Med 2020;172(1):46-56.

4. Constantin A, Predescu D, Ciofu R, Achim F, Constantinoiu S. Palliative "Toilet" Mammectomy, A Decision-Making Dilemma-Short Review. Chirurgia 2021;116(2):150-61.

5. Özmen V, Özmen T, Doğru V. Breast cancer in Turkey; an analysis of 20.000 patients with breast cancer. Eur J Breast Health 2019;15(3):141-6.

6. DeSantis CE, Ma J, Gaudet MM, Newman LA, Miller KD, Sauer AG, Jemal A, Siegel RL. Breast cancer statistics, 2019. CA Cancer J Clin 2019;69(6):438-51.

7. Siegel RL, Miller KD, Jemal A. Cancer statistics, 2015. CA Cancer J Clin 2015;65(1):5-29.

8. Singletary SE, Connolly JL. Breast cancer staging: working with the sixth edition of the AJCC Cancer Staging Manual. CA Cancer J Clin 2006;56(1):37-47.

9. Manzoor S, Anwer M, Soomro S, Kumar D. Presentation, diagnosis and management of locally advanced breast cancer: Is it different in low/middle-income countries? Pak J Med Sci 2019;35(6):1554-7.

10. Khan SA, Stewart AK, Morrow M. Does aggressive local therapy improve survival in metastatic breast cancer? Surgery 2002;132(4):620-7.

11. Fields RC, Jeffe DB, Trinkaus K, Zhang Q, Arthur C, Aft R, Dietz JR, Eberlein TJ, Gillanders WE, Margenthaler JA. Surgical resection of the primary tumor is associated with increased long-term survival in patients with stage IV breast cancer after controlling for site of metastasis. Ann Surg Oncol 2007;14(12):3345-51.

12. Ahmad HH, Nicolas G, Saliba C, Ghandour MA, Zeaiter NM, Alzein H, Kassem A, Akhrass MAA, Kubaissi M, Rahhal H, Ibrahim N, Chahrour A. Chest wall reconstruction with a bilayered wound matrix mesh following toilet mastectomy. Am J Case Rep 2019;20:1736-9.

13. Dharkar DV, Moses S. Palliative mastectomy revisited. Indian J Palliat Care. 2018;24:359-61.