

Alternative medicine for management of breast masses: More harm than good

Authors' Contribution:
Study Design A
Data Collection B
Statistical Analysis C
Data Interpretation D
Manuscript Preparation E
Literature Search F
Funds Collection G

ABCDEF **Sami Akbulut**
E **Yusuf Yagmur**
DE **Serdar Gumus**
AD **Mehmet Babur**
AB **Mehmet Ali Can**

Department of Surgery, Diyarbakir Education and Research Hospital, Diyarbakir, Turkey

Corresponding Author: Sami Akbulut, e-mail: akbulutsami@gmail.com
Conflict of interest: None declared

Case series

Patient: —
Final Diagnosis: **Breast cancer**
Symptoms: —
Medication: —
Clinical Procedure: —
Specialty: —

Objective: **Diagnostic/therapeutic accidents**

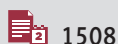
Background: Several well-established, evidence-based treatment modalities are currently available and widely applied to breast cancer patients, but it is known that some of the cancer patients use traditional/alternative medicine other than their treatments.

Case Report: Herein, we report the cases of 2 middle-aged women (45 and 50 years old) with malignant breast masses who experienced serious complications in response to self-prescribed use of alternative medicine practices to treat their condition in lieu of evidence-based medical treatment. Specifically, the use and/or inappropriate application of alternative medical approaches promoted the progression of malignant fungating lesions in the breast for these 2 patients. The first patient sought medical assistance upon development of a fungating lesion 7–8 cm in diameter and involving 1/3 of the breast, with a palpable mass of 5×6 cm immediately beneath the wound. The second patient sought medical assistance upon development of a wide, bleeding, ulcerous area with patchy necrotic tissue that comprised 2/3 of the breast and had a 10×6 cm palpable mass under the affected area. Use of some non-evidence-based medical treatments as complementary to evidence-based medical treatments may benefit the patient on an emotional level; however, this strategy should be used with caution, as the non-evidence-based therapies may cause physical harm or even counteract the evidence-based treatment.

Conclusions: A malignant, fungating wound is a serious complication of advanced breast cancer. It is critical that the public is informed about the potential problems of self-treating wounds such as breast ulcers and masses. Additionally, campaigns are needed to increase awareness of the risks and life-threatening potential of using non-evidence-based medical therapies exclusively.

MeSH Keywords: **Breast Neoplasms • Inflammatory Breast Neoplasms**

Full-text PDF: <http://www.amjcaserep.com/abstract/index/idArt/890694>



1508



2



7



Background

Treatment of breast cancer has emerged as a primary focus of clinical and laboratory research in conjunction with the increased incidence of this disease worldwide. The remarkable successes of routine screening to detect breast cancer has also improved patient outcome, as many more treatment options are available in the early stages [1]. Several well-established, evidence-based treatment modalities are currently available and widely applied to breast cancer patients, including surgery, neoadjuvant or adjuvant chemo/radiotherapy, and hormone-therapy [1,2]. In addition, a significant portion of patients seek out additional medical treatments and undertake them as alternative or complimentary therapies, even though no evidence-based studies have established the efficacy or safety profiles of these methods [3]. Moreover, these practices continue despite a multitude of reports from across the globe of adverse outcomes following treatment with various alternative medicines and procedures. For example, topical application to the breast of a lotion made of local herbs in Nigeria proved caustic; the consequent extensive necrosis and ulceration led to a rapid expansion of the fleshy part of the tumor, to the point where it projected outside of the epidermal layer [4].

In general, treating physicians acquiesce to the phenomenon of patients using a non-evidence-based therapy as a traditional/alternative/complimentary treatment modality as long as the possibility of such methods safely enhancing the primary evidence-based treatment method has not been ruled-out by a systematic, well-controlled, scientific research study. However, the use of non-evidence-based medical treatments as the primary therapeutic method is strongly discouraged, as it is scientifically erroneous and a medico-legal pitfall. Here, we report the serious adverse effects experienced by 2 patients with breast masses, who chose to use non-evidence-based medical methods as an alternative to the evidence-based medical treatments.

Case Report

Case 1

A 45-year-old female presented to our polyclinic with a non-healing wound on her right breast. She reported having first noticed a mass in her right breast about 1 year previous and that since then the mass had grown in size, with the most noticeable change occurring over the last month. The patient also stated that 10 days prior to clinic presentation she had twice applied a boiled mixture of dried apricots, molasses, and raisins to the right breast according to the suggestion of her neighbors. Over the next 10 days, a cutaneous ulceration formed on the right breast, which was accompanied



Figure 1. View of the right breast of the 45-year-old female patient.

by a burning sensation. Physical examination revealed an infected fungating lesion, an open wound of 7~8 cm in diameter (Figure 1), and a palpable mass of 5×6 cm immediately beneath the wound. An incisional biopsy was taken from the deepest part of the wound, and histological analysis showed features of invasive ductal carcinoma. Breast ultrasonography was performed and showed a 60×45 mm heterogeneous mass containing microcalcifications in the upper outer right quadrant of the right breast, as well as right axillary lymphadenopathies with metastatic-like appearance (the largest measuring 3 cm). Whole-body bone scintigraphy was carried out with 20 mCi technetium medronate injection (Tc-99m-MDP) and no osteoblastic activity was detected, suggesting that the disease had reached a non-metastatic state. Treatment was initiated as aggressive debridement of the wound. Following 12 days of a routine of daily dressing changes to eliminate infection, along with antibiotic therapy, the patient received a right mastectomy (including the involved pectoralis major muscle) and a level-II axillary lymph node dissection. The 7-day in-hospital recovery course was uncomplicated and the patient was discharged to home following removal of the drainage tubes.

Case 2

A 50-year-old female patient was referred to our clinic by an outside center for management of a non-healing wound on the left breast. At admission, the patient reported having noticed a small palpable mass in her left breast 'a long time ago' but grew concerned only 2 months ago when the mass started to increase in size. Instead of attending a physician-staffed medical center, the patient's husband took her to an herbalist who prescribed an unknown herbal mixture for once-daily topical application. After 3 consecutive days of the topical routine, the patient developed a painful ulcer on the affected breast, which prompted a visit to our center where she was given antibacterial pomades for topical application. After an



Figure 2. View of the left breast of the 50-year-old female patient.

indeterminate period with no change in the wound status, the patient was referred to another physician-staffed medical center for incisional biopsy evaluation. The histological diagnosis of invasive ductal carcinoma culminated in referral to our center. Upon physical examination, a wide, bleeding, ulcerous area of patchy necrotic tissue was observed on the left breast (Figure 2) and a 10×6 cm palpable mass was detected under the affected area. The wound was treated by debridement, and daily dressing change (with antibacterial pomade-soaked gauze strips) was ordered. Whole-body bone scintigraphy with 20 mCi Tc-99m-MDP revealed osteoblastic activity throughout the body. Positron emission tomography (PET) scan/computed tomography (CT) scan with 9 mCi fluorine-18 fluorodeoxyglucose (F18-FDG) demonstrated widespread bone, lymph node, and lung metastases. The patient was administered 6 rounds of chemotherapy, but the ulcer remained unchanged. A toilet mastectomy was recommended, but the patient refused the operation.

Discussion

Metastatic breast cancer has a high rate of mortality, and the goals of treatment extend beyond attempts to eliminate the disease to reducing their tumor-related symptoms, maintaining patient satisfaction with their social environment, and prolonging survival with adequate quality of life [2,5]. Unfortunately, some treatments may cause damage to the treatment area, without completely destroying the breast tumor itself. For example, the patient may develop painful ulcers on the surface of the breast that require additional treatment. Use of evidence-based therapies has minimized the risk of such adverse effects, but the public should be made aware of such serious complications arising from use of self-prescribed alternative medicines and practices. Upon the initial diagnosis of breast cancer, the patient's healthcare team should discuss all of the

treatment choices available for controlling the disease and emphasize the potential physical benefits (relieving symptoms) and emotional benefits (psychological support), countered with a reasoned and respectful explanation of the potential risks associated with use of non-evidence-based approaches. It is imperative that wound care specialists and palliative care specialists are part of the healthcare management team.

Many of the pharmaceutical substances used in modern medicine are derived from plant sources that include a long history of use as herbal remedies [5]. Even though the practice of medical herbalism is the foundation of our modern medical practice and pharmaceutical agents, many of the original herbal and animal admixtures have not been scientifically proven in controlled studies. Still, the alternative medicine practice based on these unproven natural remedies continues to thrive based upon patient demand. The lack of scientific evidence to support the alleged therapeutic efficacy and safety of these remedies has created a divide between patients and treating physicians who practice modern medicine [6].

In the last decade many studies have attempted to determine why patients seek out and utilize alternative medicines that are possibly dangerous and ineffective [1]. The queried patients have cited a wide range of motivating factors – from the failure of modern medical therapy to completely cure all cases of chronic disorders and advanced stage cancers, to socioeconomic and cultural issues that hinder access to and understanding of modern healthcare services. In addition, a subset of patients with higher socioeconomic status exists who undergo such treatments because of desperation.

People with chronic rheumatic diseases or advanced-stage cancers who did not achieve the expected level of benefit from modern medical treatment represent a large portion of patients who express interest in pursuing alternative medical treatments as a complementary or alternative approach to evidence-based therapies [7]. However, both of the patients described herein represent the population of people with diseases who chose to forego evidence-based medical treatments in favor of a traditional herbal medicine approach, presenting for care at a modern medical facility only after substantially bothersome physical effects manifested from the alternative method. It is impossible to know whether the skin ulcerations in our cases developed because of incorrect use of the herbal medicines, use of contaminated products, or interaction between products in the mixture. Regardless of the cause, however, the use of these alternative herbal remedies caused a delay in diagnosis, exposed the patient to unknown risks, and increased the complexity of their disease course. Moreover, the physical injury to the tissues associated with the tumor lesion may have promoted the disease condition and led to a worse prognosis.

Conclusions

In conclusion, the efficacy and safety of alternative medical applications as a complementary or alternative method to modern medical treatments remain unknown. If there is no risk of the alternative application causing harm to the patient or reducing the efficacy of the primary evidence-based therapy, it may be used to increase the patient's sense of well-being. However, use of these alternative medical therapies as the

primary treatment method must be strongly discouraged in order to avoid the risks of adverse effects such as those experienced by the 2 patients described herein.

Conflict of Interest

The authors declare that there are no conflicts of interest, financial or otherwise, related to the publication of this study or its findings.

References:

1. Liao GS, Apaya MK, Shyur LF: Herbal medicine and acupuncture for breast cancer palliative care and adjuvant therapy. *Evid Based Complement Alternat Med*, 2013; 2013: 437948
2. Shioi Y, Kashiwaba M, Inaba T et al: Long-term complete remission of metastatic breast cancer, induced by a steroidal aromatase inhibitor after failure of a non-steroidal aromatase inhibitor. *Am J Case Rep*, 2014; 15: 85–89
3. Pedersen CG, Christensen S, Jensen AB, Zachariae R: Use of complementary and alternative medicine (CAM) and changes in depressive symptoms from 3 to 15 months after surgery for primary breast cancer: results from a nationwide cohort study. *Breast Cancer Res Treat*, 2013; 141(2): 277–85
4. Arowolo OA, Akinkuolie AA, Adisa AO et al: Giant fibroadenoma presenting like fungating breast cancer in a Nigerian teenager African. *Afr Health Sci*, 2013; 13: 162–5
5. Sarisen O, Caliskan D: Fitotherapy: Herbal Medicine, Attention of in Primary Health Care. *Sted*, 2005; 14(8): 187
6. Lambe CE: Complementary and alternative therapy use in breast cancer: notable findings. *J Christ Nurs*, 2013; 30(4): 218–25
7. Michalsen A: The role of complementary and alternative medicine (CAM) in rheumatology – it's time for integrative medicine. *J Rheumatol*, 2013; 40(5): 547–49