18 Year–Survival ForEvolutive Metastatic Breast Cancer: ACase Report

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Abstract

Introduction :

Breast cancer is considered as a systemic disease.

Metastatic breast disease can involve any organ of the body with different proportion.

Bone, Lung and liver are the most common involved sites.

Despite therapeutic advances, metastatic breast cancer remains lethal.

Some patient with metastatic breast cancer die within months after detection of systemic dissemination but some live for years with a high quality of life.

Until now, consensus around the treatment of metastatic breast cancer has not been yet established. Therapeutic options for metastatic breast cancer are still controversial.

Our aim through this case is to report a patient with a long-term survival evolutive metastatic breast cancer. Case Report: A 52year-old woman with a MBC involving fives different organs and with 18 year-survival. Conclusion: Metastatic breast cancer remains non curable. Therapeutic options are still controversial but chemotherapy and hormone therapy are currently the mainstays of support for this disease. Key words: Breast cancer, metastatic sites, treatment

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I. Introduction :

Breast cancer remains a major public health issue.

Breast cancer mortality rates have dropped in recent years thanks to screening mammography and advances in adjuvant therapy. However the incidence of metastatic breast cancer(MBC) has remained the same with poor prognosis and low proportion of long-term survivors.

Although therapeutic advances in systemic therapy induced an increase in survival, MBC remains considered as an incurable disease. In comparison to the treatment of early breast cancer which is relatively well-defined, therapeutic options for metastatic breast cancer remains controversial.

Breast cancer can spread to many organs. The most common sites of involvementare Bone, lung and liver. Even with MBC some patients can live for many years. Our aim is to report a case of a MBC with five involved sites and 18 year-survival.

II. Case Report :

A 52 year-old North-African woman, with no past medical history, no family history of cancer, menopausal for 6 years , followed since 1995 at our institution for an invasive ductal carcinoma of the left breast with initial TNM stage T2N0M0. She had in 1995 a left mastectomy and axillarylymph nodes dissection. In the final histologic examination she had an invasive ductal carcinoma SBR II, Hormone Receptors positive (Oestradiol receptors ER=70%, Progesterone receptors PR=0%),HER2 (+), 9N (-)/ 9N .

In the adjuvant setting she had regional Radiotherapy and a Hormone-therapy based on Tamoxifen 20mg during 5 years.

After three years of follow up she relapsed with 1 pulmonary metastasis in each lung for which she had 6 cures of chemotherapy made of 5-fluoracyl(5-FU),Epuribicine and Cisplatinum (FEC100), well tolerated andwith a complete clinical and radiological response. Five years later, she had another pulmonary recurrence, the patient underwent second line hormone-therapy made of Letrozolfor 6 six months with no response. So; she was put on Magestrol Acetate with a stability of lung lesion.

Five years later she developped a cutaneous metastasis located at the right hypochondrium confirmed histologically and treated with local excision followed byAnastrozol hormone-therapy. Three months later she had a brain computed tomography (CT) in the setting of etiologic work-up of headaches that showed brain metastasis. She was treated by surgery followed by radiotherapy and chemotherapy based on 5-FU per os.

Four years later, she consulted for abdominal pain. A Cervico-thoraco-abdomino-pelvic CTshowed a right adrenal mass and suspicious thyroid lesion in both lobes. The patient underwent surgery, she had total throidectomy and right adrenalectomy. The final histologic examination including immuno-histo-chemestry confirmed thyroid and adrenal metastases of breast cancer. We decided to put her under Endoxan-Methotrexate chemotherapy. The patient died two months later due to respiratory deficiency induced by pulmonary lymphangitis after 18year-survival.

III. Discussion :

The median survival of metastatic breast cancers have seen an improvement during the last ten years passing from a range of 18 to 24 months to a range of 30 to 36 months. Five years survival is reported to be 5 to 10%.

These median values mask a significant heterogeneity with a life expectancy ranging from a few months to a few years(1).

Metastases of breast cancer are frequently isolated to the lung and liver.

Like shown in the study of Lee et al, The five leading sites of metastatic involvement at autopsy are lung, bone, lymph nodes, liver, and pleura.

The reported median incidence (and ranges) of metastasis in these five sites were:

Lung 71 % (57-77%), bone 71 % (49-74%), lymph nodes 67% (50-76%), liver 62% (50-71%), and pleura 50% (36-65%). Adrenal gland was the sixth organ most commonly involved (median 41 %, range 30-54 %) (2)

Metastatic cutaneous lesions are seen more commonly in breast cancer than

in any other malignancy in women, exceeding 20% of all cutaneous metastases(3,4).

The presence of skin metastases signifies widespread systemic disease and a

poor prognosis(5).

Mediansurvival time varies. A mean survival of 57.43 months for breast cancer with cutaneousonly metastases was reported in retrospective series by Hu et al (6).

Median overall survivalin metastatic breast cancer is about36 months(4).

Metastases to the thyroid are rare.

Overall, the outcomes in malignancies that have metastasized to the thyroid are poor.

Clinical series of intrathyroid metastases (ITM) of extrathyroid cancers are rare and samples are limited. ITM represent between 1.4% and 2.5% of thyroid cancers.

The most frequently reported primary cancers are clear cell renal carcinoma, bronchial carcinoma, and breast cancer(7).

Patients with intrathyroid metastases coming from an extrarenal cancer had a worser prognosis and a higher mortality rate(7).

Lung is the organ most commonly containing metastatic breast cancer at autopsy(2).

Viadana et al consider this organ a filter that is interposed between primary tumor and other noncontiguous organs. Lung's metastases can give rise to others metastases and be a source of further dissemination to others sites called the 'cascade phenomen'. Viadana and all have shown also that metastases to other organs were strikingly unusual (3%) in the absence of seeding in either the lungs, liver or bone(8).

IV. Conclusion :

Even if many improvements have been achieved in the field of MBC, this disease is still incurable withunwell-defined treatment. More efforts are needed in research, drug development and guidelines implementation. More studies dealing with long-term survivors are needed in order to Identify prognostic factors that will help us adapt treatment to the patient.

V. Declaration :

Ethics approval and consent to participate

I declare no conflicts of interest between the author And that this work was made with all the due respect to the code of ethics under the supervision of the medical and ethic comitee of the Salah AzaiezInstitute .

Written informed consent was obtained from the patient for publication of this case report and any accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal."

Data and supporting materials section :

Google scholar, PubMed and ScienceDirect have been used searching for the articles cited in the reference list.

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