

# Ductal invasive carcinoma of breast cancer. A case report

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## Abstract

Ductal invasive carcinoma showed to be still poorly understood disease in women of different age. We present a case of 48-year-old women with an ulceration and lymphedema seen at the right breast, without other symptoms or other pathological history. In the last 30 days, the patients observed that the right breast had become much larger with the retraction of the right nipple. These aspects were ignored by the patient from the beginning, and in a short interval a ulceration was seen at the right breast together with a lymphoedema on the same side which bring the patient to consultation. The anatomopathological results confirmed a ductal invasive carcinoma, estrogen and progesterone receptor-positive, and HER2/neu-positive. Currently ongoing research aim for a better understanding features of this progressive local invasion in breast carcinoma without any other symptoms.

**Keywords:** breast, ductal carcinoma, invasive, ulceration, surgery, chemotherapy

## Introduction

Invasive cancer showed to be more a heterogeneous disease in respect to its clinical features<sup>(1)</sup>. Many carcinomas have the starting point in mammary ductal epithelium, more exactly in the duct-lubular unit and a higher percentage is retaining by the ductal invasive carcinoma<sup>(2)</sup>. Another invasive carcinoma like lubar carcinoma which represent about 15% showed to be the second aggressive type<sup>(3)</sup>. Although nowadays the techniques used in order to detect breast cancer in early stages have been developed, we still confront with difficult situations in which no other pathological signs occur<sup>(4)</sup>.

We present a case of 48-year-old women with an ulceration and lymphedema seen at the right breast, without other signs or symptoms.

## Case Report

We present a case of a 48-year-old women, obese patient presented at the emergency department from the “Sf. Apostol Andrei” Emergency Hospital Clinic from Constanta, Romania which reported that two years ago she had felt a small lump in her left breast. The informed consent of the patient was taken.

The patient presented no other pathological history or breast cancer risk factors. From her personal history we noted that the patient had menarche at 13 years, 2 pregnancies and has been in menopause for 6 years. The children's were born at 34 and 35 weeks, and were breastfed for 6 months. In the last 30 days, the patients observed that the right breast had become much larger, heavy and itchy together the retraction of the right nipple. These aspects were ignored by the patient from the beginning, and in a short interval a ulceration was seen at the right breast together with a lymphoedema on the same side which bring the patient to consultation.

From her hederocolateral antecedents it was noted that her mother died of pre-menopausal breast cancer. No other important pathologies were observed.

Her clinical examination had showed an altered general condition with a 39-degree fever, tachycardia and obesity. The examination of the breasts, painful on palpation, revealed a mammary gland atrophy, especially on the right side, associated to multiple lumps having erythema, edema and ulcerations of the right breast, including axillary lymph node appearance (Figures 1 and 2).

A fine needle biopsy of the axillary nodes, together with the biopsy from lump breast was performed.

The anatomopathological results confirmed a ductal invasive carcinoma, estrogen and progesterone receptor-positive, and HER2/neu-positive.

The results of tumor markers such as carcinoembryonic antigen was higher (37 ng/ml; normal range <2.5 ng/ml); and CA 15.3 was much smaller (17 U/ml, normal range <30 U/ml).

After the surgery, with consisted of partial mastectomy, the patient was send it to oncology department from the same hospital where she started to received analgesics and a palliative radiotherapy.

## Discussion

In order to maintain a decreased level of breast cancer, early detection stages of the disease still remain the main goal of the physician. In common cases, the smaller and nonpalpable lumps showed to be treatable, having a positive prognostic. In this regard, epidemiological data have detected several risk factors for its developing<sup>(2)</sup>. The main risk factor is represented by the level and duration of exposure to estrogen, most often by using the contraceptives. Other factors like the early age of menarche, and a late age of menopause showed to increased the risk for breast cancer<sup>(5)</sup>.

The major complain of these patients are represented by the change in color, and edema which rapidly spread over the entire breast. Only for a few weeks a sensation of heat and enlargement of the affected

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tissue could also appear. Anyway, up to 30% of patients will not present palpable lumps, but axillary adenopathies could be found<sup>(6)</sup>. This type of carcinoma is mainly defined as having rapid onset of signs like edema, erythema and ulceration<sup>(7)</sup>. The differential diagnosis is usually made with other benign or malign disease. The hormone-positive tissues showed to have a lower course and tumors which respond to estrogen receptor are more probably to respond to antiestrogens. The tumors which are estrogen-negative are more refractory to hormonal treatment, and the HER-2/neu marker showed to have a poor outcome<sup>(8)</sup>.

This specific case is a typical controversial case because of the clinical features like edema, erythema, and ulceration developed over a short period of 30 days without any history of areolar-nipple invasion. Therefore, whether we are dealing with a ductal invasive carcinoma or other types of breast carcinoma, the local invasion in such a short time showed to be surprising. Moreover, it is important to recognize the disease and together with its differential diagnosis, to decrease the mortality and morbidity rate in early stages.

## Conclusions

Ductal invasive carcinoma still remains a challenging issue with regard to its early diagnosis. A better definition of the ductal carcinoma features needs to be explored. Currently ongoing research aim for better understanding characteristics of this progressive local invasion in breast carcinoma, especially in cases where other symptoms are not present. ■

**Conflict of interests:** The authors declare no conflict of interests.



**Figure 1.** Erythema, edema and ulcerations of the right breast



**Figure 2.** The atrophy and retraction of the right nipple

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