

# Lobular Breast Carcinoma: The Epidemiological, Clinical, Therapeutic and Evolutionary Profile in the Obstetric Gynecology Department I at CHU Hassan II Fez (Retrospective Study of 23 Cases)

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**Abstract:** Breast cancer is the number one cancer in women in the world. Invasive ductal carcinomas and invasive lobular carcinomas represent more than 90% of all histologic types of invasive breast cancer [5]. Lobular carcinoma accounts for 2.8% to 6% of all malignant lesions of the breast. It is, by its frequency, the second histological type after galactophoric (ductal) cancer, the frequency of which is 85%.

**Keywords:** breast, carcinoma, lobular

## Introduction:

In Morocco, breast cancer is the most frequent cancer and occupies the first place in women (36.5%) with more than 5,396 new cases and 2,804 deaths estimated in 2008 [1,2].

80 to 85% of breast cancers are represented by ductal carcinomas. Among the remaining 15 to 20%, the most frequent histological form is represented by lobular carcinomas [3-4].

Compared to ductal carcinomas, in situ or infiltrating, lobular carcinomas are individualized by diagnostic, therapeutic and progressive features, which must be well known to the gynecologist but also to the general practitioner who may be called upon to participate in the diagnosis and monitoring. of these patients.

## Methods :

In this study we collected a total number of 23 cases of women with infiltrating lobular carcinoma, treated in the Gynecology-Obstetrics I department of the University Hospital of Fez, during a period of 5 years from January 1, 2016 to December 31, 2020. In order to study the various epidemiological, clinical, anatomic-pathological, therapeutic and prognostic features of invasive lobular carcinoma.

## Result:

During a period of 5 years, from January 2016 to December 2020, 723 women with breast cancer were identified in the department of Gynecology - Obstetrics "I".

Among them, 23 had infiltrating lobular carcinoma of the breast, a frequency of 3.18% of the overall number of breast cancer., The extreme ages were 31 and 67 years.

The most affected age group is between 47 and 54 years old with a rate of 46.70%.

The time between the appearance of the first signs and the date of consultation was specified in all patients. In our study, this period was on average 6 months with a minimum of 01 month and a maximum of 18 months. 08 patients, ie 34%, consulted within a period exceeding 6 months. The most frequent reason for consultation was self-examination of a breast nodule, found in 82% of cases (19 patients). Follow-up of mastodynia in 17% of cases (4 patients) with a predominance of the left side was objectified in 12 patients, ie a rate of 52%.

Bilateral involvement was observed clinically in 2 patients, i.e. 08%

It was found in our study, 60% of patients had a tumor size between 2 and 5 cm, while sizes > 5cm represented 27% and 13% of patients had a tumor size less than or equal to 2cm.

The average tumor size in our study is 4.7 cm with extremes ranging from 2 to 9 cm

The mobile nature of the tumor was mainly found in 18 patients, ie 80% of cases. It was fixed in relation to the two plans in 3 patients (13% of cases).

And fixed relative to the superficial plane / mobile relative to the deep plane in 2 patients, ie 8% of cases.

All patients underwent a mammogram, ie 100% of cases, which revealed a suspicious image of malignancy in 93% of cases (21 patients) and associated with micro calcifications in 27% of cases (6 patients).

For extension assessment: It was performed in all patients and was positive in 7 patients, clinical examination revealed the associated presence of:

- Bone signs in 2 patients
- Digestive signs in 3 patients
- Respiratory signs in 2 patients

Treatment of breast cancer is multimodal, based on the combination of locoregional treatment and systemic treatment. Locoregional treatment is based on surgery and radiotherapy, as for general treatment, which calls for chemotherapy and / or hormone therapy and targeted therapy.

### **Discussion:**

Breast cancer is the number one cancer in women in the world. Invasive ductal carcinomas and invasive lobular carcinomas represent more than 90% of all histologic types of invasive breast cancer [5].

Lobular carcinoma accounts for 2.8% to 6% of all malignant lesions of the breast. It is, by its frequency, the second histological type after galactophoric (ductal) cancer, the frequency of which is 85% [3,4]

Lobular carcinoma in situ (CLIS) is defined (according to WHO) as a carcinoma involving the intralobular canaliculi without invasion of the neighboring connective tissue.

LCIS is a rare lesion: its incidence is 2 to 3% of breast cancers.

It is considered to be a risk factor for invasive cancer more than a cancerous condition. Its frequency varies according to the authors between 0.8 and 3.8%, and it is found in 0.8 to 2% of biopsies performed for benign lesions.

In our series, no cases of CLIS were reported, and these are due to the late diagnosis of breast cancer in all women even though the most frequent consultation time was 1 to 3 months.

The incidence of CLI is between 10% and 15%. [32, 33]. Reviews of older literature have shown the incidence of CLI to be 3-4.2% 30-40 years ago [7,8]. It has therefore clearly increased, mainly in postmenopausal women.

It is classified as the second most common histological type, after invasive cancer of the nonspecific type (CINS). Its incidence is clearly increasing [6].

The increase seems to be related to the frequency of use of hormone replacement therapy after menopause which could increase the risk of developing this condition 2 to 3 times and much more than for invasive carcinoma of the nonspecific type. It preferably metastasizes to the serous membranes and more particularly to the peritoneal level [9].

This increase was also demonstrated in our study with an increase in the frequency of CLI going from 7.14% in 2017 to reach 8.64% in 2019.

Many studies show that having your first period before the age of 12 increases the risk of breast cancer [10]. The biological basis of this association corresponds to the early and prolonged exposure to hormonal impregnation. On the other hand, no study has been reported on a link between lobular carcinoma and the age of the first menstruation.

Women who go through menopause after age 50 have an increased risk of breast cancer, compared to those who stop menstruating early. The risk of breast cancer increases by about 3%, for each additional year, from the presumed age of menopause, the mechanism of which is the prolonged production of ovarian hormones [11].

The average age in women with invasive lobular carcinoma varies according to the authors. Several studies have shown that patients with invasive lobular carcinoma present at diagnosis with a generally older age than patients with CCI. [12, 13, 14, 15].

According to Wasif's study in the US, the average age was 64.9 years [39]. In the Asian population and according to the study by Jung [10], CLI affects women 10 to 20 years younger, in fact the average age of onset of these tumors was 48.4 years. The time between the appearance of the first clinical symptoms and the first consultation can be more or less long and differs depending on the case.

In the Arab Maghreb The average consultation time according to Khelifi's study in Tunisia was 7.8 months on average [16]. While in Morocco and according to the El Alouani study, this period was 7 months [17].

As for our patients, they consulted within an average of 6 months with extremes of 01 month to 18 months, and only 26% of these patients consulted before 3 months.

Lobular cancer has a symptomatology, in general, less rich than the intra-ductal carcinoma, often results in a poorly defined mass, quite large, difficult to palpate, with poorly defined contours, sometimes resembling a zone of mastotic consistency [18].

The pauci symptomatic nature of lobular carcinoma may explain its often late diagnosis [19].

In the majority of cases, lobular carcinoma is diagnosed by self-examination of a breast lump by the patient. Cancer can also be manifested by nipple discharge, mastodynia, deformation and / or enlargement of the breast, retraction of the nipple, or redness of the breast.

In the study carried out by Khlifi [17], self-examination of a breast nodule was the most frequent reason for consultation with a rate of 87.8%, the same for El Alouani [18] with a rate of 80 %.

In our study, self-examination of a breast nodule was the most common discovery method for CLI, with a rate of 82%, according to data in the literature.

Lobular cancer is found more frequently in the left breast than in the right breast, preferably the upper outer quadrant (QSE) [3]. In our series, the most frequent site was the left breast in 52% of cases. We also noted a predominance at the level of the superior external quadrant (QSE) with a rate of 56.5%.

In terms of tumor size, invasive lobular carcinoma is characterized by a bulky tumor size at the time of diagnosis. This would be explained by the fact that CLIs have a less marked, or even absent, stromal reaction causing an insidious infiltration of the mammary gland without the development of a tumor mass, which makes the lesion intangible and invisible, both clinically and mammography [9 .10].

A large number of authors have reported the existence of an increased tumor size at the time of diagnosis of lobular carcinomas, compared to ductal carcinomas.

According to the study by Sastre Garau [10], they analyzed 726 cases of CLI and 10,061 cases of CCI: 42.5% of patients with CLI had a tumor size between 2 and 5 cm against 45% in CCI, 19 % of cases with CLI had a height greater than 5cm versus only 12% of CCIs. 27% of CLI cases and 25.5% of CCI cases had a tumor size of less than 2 cm.

For N. Wasif in the USA, 66.30% of patients studied with CLI had a tumor size <2 cm, 29.10% had a tumor size between 2 and 5 cm while only 4.60% had a tumor size > 5 cm [20].

In our study: 60% of patients had a tumor size between 2 and 5cm, while sizes > 5cm represented 27%, and 13% had a tumor size less than or equal to 2cm

In our series, bilaterality was found in 2 patients, ie 08%.

Essential examination, carried out in the first 10 days of the cycle, it is bilateral and comparative with images of the front, profile, axillary extensions, and if necessary supplemented by enlarged centered images.

Ultrasound is an essential adjunct to mammography and clinical examination for the evaluation of breast lesions. It corrects the diagnosis by showing a tumor mass or a suspicious abnormality, as it allows biopsies to be performed, and echo-guided punctures to increase diagnostic cost-effectiveness.

The sensitivity of ultrasound for the detection of invasive lobular carcinomas is greater than that of mammography, with a sensitivity ranging from 68% to 97%. However, like mammography, ultrasound tends to underestimate the size of the tumor.

The use of ultrasound as an adjunct to mammography has been shown to significantly improve the detection of CLI.

However, CLI does not present any specific characteristics on ultrasound allowing it to be distinguished from CCI: we find an irregular hypoechoic mass with a large vertical axis. The content is most often heterogeneous; irregular contours are blurred, angular, or microlobulated. The posterior attenuation is inconstant, but classic. It seems that the hypoechoic halo is a determining sign and frequently found [21-22].

MRI is widely recognized as the most sensitive detection modality in invasive lobular carcinoma: it is 83 to 100%, with two prospective studies finding a sensitivity of 95 and 97%. This sensitivity is superior to other diagnostic modalities: 65 to 98% for clinical examination, 81 to 98% for mammography, 68 to 98% for ultrasound [23. 24].

Invasive lobular carcinoma can take on a variable appearance on imaging, both mammography and MRI. Despite this challenge, imaging remains fundamental in the detection and management of invasive lobular carcinoma. MRI, despite its cost and limited availability, has an increasing role in the management of invasive lobular carcinoma, due to its proven superiority over mammography and ultrasound in terms of detection of multifocalities and multicentricity, and more precise assessment of the extent of the disease.

There is a definite difficulty in diagnosing these tumors. Clinic, imaging and even fine needle aspiration can be deceptively reassuring. The surgical biopsy in the face of any anomaly that has not proved its benignity remains an essential diagnostic procedure.

The purpose of carrying out an extension assessment when an invasive cancer is discovered aims to identify cancers that immediately show remote metastases in an asymptomatic manner, with the aim of avoiding the morbidity of treatment unsuitable surgical procedure and / or allow a good adaptation of adjuvant treatments.

The metastatic profile of CLI is particular. This peculiarity has been well demonstrated by the study of Harris et al. [86] who first published the ability of CLIs to spread to unusual sites: peritoneum, retro peritoneum, and hollow viscera.

Overall, CLI is characterized by diffuse infiltration of these organs, similar to lymphomas. These particular locations are observed rather at the end of the metastatic course and may go unnoticed clinically [25].

Treatment of breast cancer is multidisciplinary treatment. It is often based on a strategy combining several treatments: surgery, chemotherapy, radiotherapy and hormone therapy. This strategy is decided on the basis of the initial stage of the tumor, its general condition, the assessment of the extension of the disease and the histo-prognostic factors of the tumor.

The treatment of breast cancer has two goals:

¥ Control the primary tumor and the lymph node drainage areas, this is the locoregional treatment,

¥ Treating a possible remote subclinical dissemination is the general treatment.

¥ Infiltrating lobular carcinoma remains rare, but its incidence has clearly increased in recent years, which justifies knowledge of the particularities of this type of breast cancer. This study made it possible to highlight the various epidemiological, clinical, anatomo-pathological, therapeutic and evolutionary characteristics.

80 to 85% of breast cancers are represented by ductal carcinomas. Among the remaining 15 to 20%, the most frequent histological form is represented by lobular carcinomas which represent 2.8% to 6% of malignant lesions of the breast (the in situ type represents 0.8 to 3.8% and it is considered by most authors to be a risk factor for invasive cancer rather than a cancerous condition, the invasive type accounts for 4% of all invasive breast carcinomas and 10% of the rate of breast cancer).

CLI has particular clinical-pathological characteristics with an increased tumor size at the time of diagnosis, an increased risk of multifocality and bilaterality. CLI can pose a diagnostic problem due to its lack of clinical and radiological specificity.

Breast MRI should be included in the preoperative workup each time conservative treatment is offered. Its metastatic spread differs from that of infiltrating ductal cancers with more frequent involvement of the digestive serosa, stomach, ovaries and meninges, which may pose the problem of how they are monitored.

Therapeutically, there is little therapeutic specificity for invasive lobular carcinomas compared to invasive ductal carcinomas.

Although CLIs appear to have a good prognosis, as they are often low histopronostic grade with positive hormone receptors, their course does not seem too different from that of CCIIs.

#### **Conclusion:**

Lobular cancers infiltrating the breast pose a definite diagnostic problem because of their lack of specificity both at the clinical and imaging levels. Their metastatic spread differs from that of infiltrating ductal cancers with more frequent involvement of the digestive serous membranes, stomach, ovaries and meninges, which can pose a problem with how they are monitored. Although therapeutically, there is little therapeutic specificity for invasive lobular carcinomas compared to invasive ductal carcinomas.

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