# ELSEVIER

#### Contents lists available at ScienceDirect

#### The Breast

journal homepage: www.elsevier.com/brst



#### Original article

## Mastectomy patterns, but not rates, are changing in the treatment of early breast cancer. Experience of a single European institution on 2315 consecutive patients



Alessandro Fancellu <sup>a, \*</sup>, Valeria Sanna <sup>b</sup>, Pietrina Cottu <sup>a</sup>, Cladio F. Feo <sup>a</sup>, Antonio M. Scanu <sup>a</sup>, Giulia Farina <sup>a</sup>, Antonio Bulla <sup>c</sup>, Angela Spanu <sup>d</sup>, Panagiotis Paliogiannis <sup>e</sup>, Alberto Porcu <sup>a</sup>

- <sup>a</sup> Unit of General Surgery 2-Clinica Chirurgica, Department of Clinical and Experimental Medicine, University of Sassari, Sassari, Italy
- <sup>b</sup> Unit of Medical Oncology, Department of Clinical and Experimental Medicine, University Sassari, Sassari, Italy
- <sup>c</sup> Unit of Plastic Surgery, Department of Surgical, Microsurgical and Medical Sciences, University of Sassari, Sassari, Italy
- <sup>d</sup> Unit of Nuclear Medicine, Department of Clinical and Experimental Medicine, University of Sassari, Sassari, Italy
- <sup>e</sup> Unit of Experimental Pathology and Oncology, Department of Clinical and Experimental Medicine, University of Sassari, Sassari, Italy

#### ARTICLE INFO

#### Article history: Received 21 December 2017 Received in revised form 28 January 2018 Accepted 8 February 2018

Keywords: Mastectomy Breast conservation Early breast cancer Breast reconstruction Trends

#### ABSTRACT

*Background:* Recent literature reports that rates of mastectomy are increasing in early breast cancer. However, data from European institutions are limited and revealed conflicting results. We report on 15-year trends of mastectomy, mastectomy plus immediate reconstruction and contralateral prophylactic mastectomy (CPM) at an academic institution.

*Methods*: We identified women diagnosed with unilateral early breast cancer at stage 0-IIa, with tumour size  $\leq$  4 cm, between 2002 and 2016. Trends were assessed using the Cochrane–Armitage test. Multivariable logistic regression was used to identify factors associated with receipt of mastectomy plus immediate reconstruction.

*Results:* A total of 2315 patients were identified. Of them, 65.7% underwent breast conserving surgery (BCS), while 34.3% underwent mastectomy as upfront surgery. Two point four per cent also received CPM. Immediate reconstruction was performed in 36.0% of patients receiving mastectomy. There was no change in trends of mastectomy over the 15 years studied (p = 0.69), as well as in trends of patients undergoing CPM (p = 0.44). In contrast, rates of immediate reconstruction rose significantly over the study period (from 12.2% in 2002 to 62.7% in 2016, p < 0.0001). Women were more likely to receive mastectomy plus immediate reconstruction if they were aged 50 years or younger, or had tumours larger than 2 cm, or had non-invasive carcinoma.

*Conclusions:* Our study suggests that rates of both mastectomy and CPM in early breast cancer are not increasing, while use of immediate reconstruction is on the rise.

© 2018 Elsevier Ltd. All rights reserved.

#### 1. Introduction

In recent years, breast conserving surgery (BCS) followed by radiation therapy has been considered the treatment of choice for most patients with early breast cancer. In fact, many studies have demonstrated that such an approach is as effective as mastectomy

E-mail address: afancel@uniss.it (A. Fancellu).

in terms of oncological outcomes [1–3]. Consequently, use of BCS increased steadily during the last decades of the twentieth century [3,4]. However, recent literature suggests that rates of mastectomy as upfront surgery in patients with early breast cancer are on the rise [5–9]. This phenomenon occurs despite the fact that detection of small tumours has become more and more frequent, mostly thanks to the widespread adhesion to mammography screening programmes. Furthermore, the increasing use of oncoplastic techniques has led to widen the application of breast conservation to some patients candidates to mastectomy [10,11].

Authors also reported that recently rates of contralateral

<sup>\*</sup> Corresponding author. University Of Sassari, Dept. of Clinical and Experimental Medicine, Unit of General Surgery 2- Clinica Chirurgica. V.le San Pietro 43, 07100, Sassari, Italy.

prophylactic mastectomy (CPM) have dramatically increased in patients with unilateral breast cancer [6-8].

However, conflicting data has been reported concerning the trends of BCS and mastectomy in the treatment of breast cancer, with differences in rates observed between United States institutions and between United States and European institutions [12–14].

Moving to an era of great attention to minimally invasive treatments and tailored approaches in surgical oncology, there is an increasing interest to evaluate this shift from breast conservation to a more radical and invasive operation such as mastectomy, which also bears increased risk of surgical complications and psychological concerns [6,8,15,16].

Reasons behind these profound changes in surgical management of breast cancer are various and complex; among them, the increasing use of immediate breast reconstruction at the time of mastectomy plays an important role [11,16,17].

There is a limited number of reports assessing trends of mastectomy coming from European countries. We conducted an institutional review with the main aim of reporting the trends of BCS and mastectomy as upfront surgery in patients with early breast cancer at a European academic hospital. In addition, we sought to evaluate trends of mastectomy with immediate reconstruction and CPM (Fig. 1).

#### 2. Methods

#### 2.1. Data source and patient population

The study was conducted at the Unit of General Surgery 2-Clinica Chirurgica of the University of Sassari. This institution represents the referral centre for breast cancer treatment in the Northern Sardinia, and satisfies the requirements of a specialist breast centre as identified by EUSOMA [18]. The number of new diagnosed cases undergoing surgical treatment has remained stable above 200 per year over the last two decades.

We performed a retrospective analysis by using an institutional-approved, prospectively-maintained database, to evaluate trends in the use of BCS and mastectomy as upfront surgery in patients with early breast cancer. For the purposes of this study, we queried our database for any patient with early breast cancer at stage 0-IIa, with tumour size not exceeding 4 cm, diagnosed between 2002 and 2016. We excluded patients who received preoperative chemotherapy, or had previous breast cancer treatment, or were diagnosed with synchronous bilateral breast cancer, or were at stage IIb or higher. Regarding the decision-making process, our policy was to propose BCS as first surgical option, when feasible. Indications for mastectomy included: cancer multicentricity, diffuse microcalcifications seen on mammography, breast size/tumour size ratio

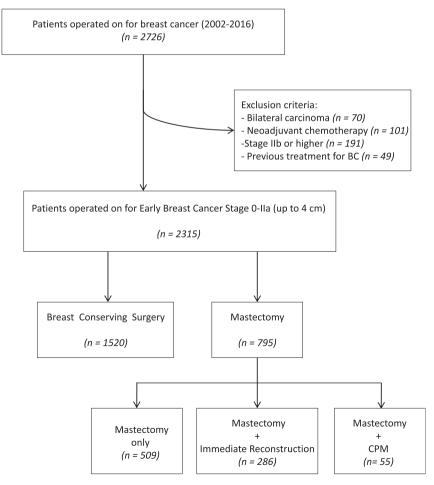


Fig. 1. Study design; inclusion and exclusion criteria; outcomes of interest.

#### Download English Version:

### https://daneshyari.com/en/article/8776745

Download Persian Version:

https://daneshyari.com/article/8776745

<u>Daneshyari.com</u>