

Knowledge, attitudes and practice of breast control in primary care centers: impact on breast cancer epidemiology in San Rafael, Mendoza

Summary

Introduction: Breast cancer is the most frequent cancer in women globally and the leading cause of cancer death among women in developing countries.

Objectives: The main objectives of this study were: to evaluate the clinico-pathological characteristics of patients with breast cancer at the San Rafael Regional Public Hospital, Mendoza; and, additionally, to determine the knowledge of an independent cohort of women regarding breast controls in the peripheral Health Centers of this city.

Material and method: For the epidemiologic analysis of breast cancer in San Rafael, the Mendoza Provincial Tumor Registry was consulted.

To study the clinico-pathological variables, a descriptive, cross-sectional type study was conducted on 51 consecutive patients with breast cancer diagnosis, during the period January 2014 to July 2016, in the Gynecology Service of the Hospital "Teodoro Schestakow" of the City of San Rafael, Mendoza.

To determine the level of knowledge regarding breast control, surveys were conducted in peripheral health centers in the neighborhoods of Pueblo Diamante, Constitution, El Molino, Villa Laredo and El Sosneado, San Rafael, with prior authorization from the Directorate of the Municipal Health Area.

Results: Breast cancer in women corresponded to 33.9% of all cancers in the period 2008-2012, according to the Provincial Tumor Registry. The mean age at the time of diagnosis was 53 years (range: 24-81 years). Advanced stages (III and IV) were diagnosed in 41.2% of patients. The 96.1% of patients presented breast symptomatology at the time of diagnosis, being breast tumor (on self-examination) the most frequent. Only 22% of women surveyed perform annual breast control; and only 7% of patients refer to having a breast examination performed at the medical consultation.

Conclusion: Breast cancer diagnosis in San Rafael is performed mainly in symptomatic patients, which reflects deficiencies in early diagnosis, breast controls and information on the female population. This represents an opportunity to conduct population-targeted prevention campaigns, as well as education of health effectors from peripheral centres.

Keywords: breast cancer, premature diagnosis, mammography

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Juan Ignacio Peralta Lorca,¹ Francisco Javier Gerardi,¹ Paul Alonso,² Javier IJ Orozco³

¹Gynecology Service of Schestakow Hospital, San Rafael, Mendoza, Argentina

²Gynecology Service of the University Hospital, National University of Cuyo, Mendoza, Argentina

³Postdoctoral fellow, John Wayne Cancer Institute, Santa Monica, California, USA

Correspondence: Juan Ignacio Peralta Lorca, Gynecology Service of Schestakow Hospital, San Rafael, Mendoza, Argentina, Email juanignacioperaltallorca@hotmail.com

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Introduction

Breast cancer is the most frequent cause of cancer in women worldwide, with an incidence of 1,676,633 new cases, representing 25.2% of all cancers.¹ The trend in incidence varies by region. In developed regions, incidence increased in the 1980s due to the incorporation of mammography, declining in the 2000s due to a decline in the use of hormone replacement therapy.¹

With a global mortality of 521,817 (14.7%), it is the leading cause of cancer death among women in developing countries and the second leading cause in developed countries after lung cancer.² In developed countries, a decrease in mortality of 36% has been observed from 1989 to 2012, which is attributed to advances in early detection methods and the incorporation of more effective adjuvant treatments.¹ Breast cancer mortality in America is 9.7 per 100,000, being Argentina, with 19,386 new cases per year, the second American country with the highest mortality index: 17.73 per 100,000 –5,376 deaths per year.³ In Argentina, mortality decreased by approximately 20% in the last decade, in a statistically significant way.⁴ But, when disaggregated by region, the decline is less marked; only the trend of the Center region was significant.⁵

Survival rates of patients with breast cancer vary according to many factors, such as age at diagnosis, initial tumor stage, biological behavior of the tumor and treatment instituted. For example, the breast cancer-specific mortality rate at 20 years in Ductal Carcinoma in situ (cdis) is 3.3%,⁶ while 5-year mortality rates for metastatic breast cancer are approximately 75%.⁷ Another important factor is the level of information of the population regarding prevention in breast cancer, due to the fact that lack of knowledge can impact on mortality by showing differences in stadium at the time of diagnostic, both in access, adherence and response to treatment.¹

The Province of Mendoza, within the region of Cuyo, is one of the areas with the highest mortality from breast cancer in the country.⁸ San Rafael is the second Mendocino department in population density, after Gran Mendoza: it has a population of 188,000 inhabitants, and 110,000 concentrated in the capital city of the department, San Rafael.⁹ The Hospital "Teodoro Schestakow" is a public, provincial and regional hospital, of complexity Category IIIB, of reference for the departments of San Rafael, General Alvear and Malargüe. No published data currently exist regarding the knowledge of the Sanrafaelina community on the performance of breast controls and

how data obtained from the characteristics of patients diagnosed and treated for breast cancer are reflected in this population.

Objectives

- Conducting an epidemiologic analysis of breast cancer in the Department of San Rafael.
- To describe the clinico-pathologic variables of patients diagnosed and treated for breast cancer at the Regional Hospital of San Rafael “Teodoro J. Schestakow”.
- To establish the level of knowledge regarding breast control in women contesting for control in peripheral primary health care centers in San Rafael.

Material and method

Epidemiologic analysis of breast cancer in San Rafael: the Mendoza Provincial Tumor Registry was consulted: To determine the incidence of breast cancer in San Rafael Department, the Mendoza Provincial Tumor Registry was consulted, which depends on Coordination of Epidemiology, Under secretariat of Health, Ministry of Health, Social Development and Sports, Government of Mendoza...The 2003-2007 and 2008-2012 quinquennials were assessed, considering the total number of cases and age-adjusted incidence rates in the world population.

Clinico-pathological variables of breast cancer at San Rafael Regional Hospital: A descriptive, cross-sectional-type study of 51 consecutive patients with a diagnosis of breast cancer was conducted during the period January 2014- July 2016, at the Gynecology Service of the “Teodoro Schestakow” Hospital in San Rafael City, Mendoza. Only patients concurring for the service for the first time, excluding previously diagnosed and/or treated patients, on breast oncologic follow-up or those concurring due to recurrence or progression of local or distant disease were considered. The following clinico-pathological variables were assessed:

- Age at diagnosis
- Menopausal status (premenopausal or postmenopausal)
- Presentation (clinical or subclinical)
- Localization (breast and mammary quadrant)
- Stadium at the time of diagnosis¹⁰
- Histopathologic variety¹¹
- Initial treatment performed.

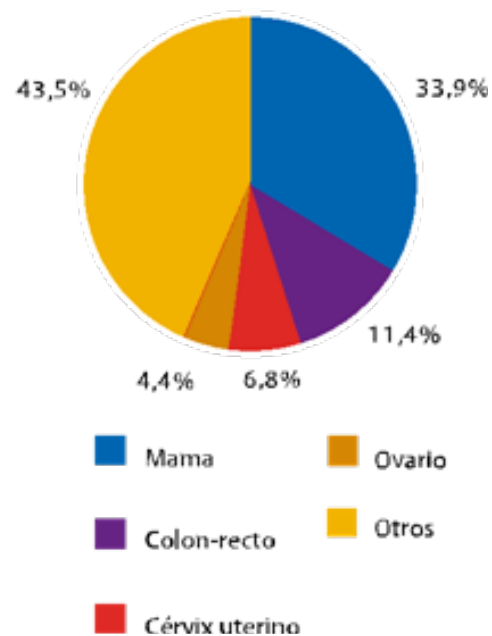
Level of knowledge regarding breast control: En-slopes were conducted in peripheral health centers in the neighborhoods of Pueblo Diamante, Constitution, El Molino, Villa Laredo and El Sosneado, San Rafael, with prior authorization from the Municipal Health Area Directorate. Ninety-seven women who attended primary health care centers spontaneously and for various pathologies were included, being at least 18 years old and accessing anonymous responding as a requirement to be interviewed and volunteered the survey which was administered to them verbally with the previously elaborated planeum, ensuring that the patient (of various literacy degrees) understood and responded to our survey. The basis of planning consisted of an oral interrogation on the siguint data: age; maximum level of schooling attained (none, full or incomplete primary, full or incomplete secondary, full or incomplete tertiary/university); realization of annual breast control; family history of breast cancer; periodic visits to the clinician and/or gynecologist; performance of

the clinical breast examination in their consultations; performing mammograms sometime and effectuating their annual mammograms; performance of breast self-examination.

Results

Epidemiologic analysis of breast cancer in San Rafael

The age-adjusted (world) incidence rate of breast cancer in the Province of Mendoza was 73.2/100,000 inhabitants and 73.4/100,000 inhabitants during the quinquennials 2003-2007 and 2008-2012 respectively. The total number of breast cancer diagnosed was 3,724 and 3,977 patients in the quinquennials 2003-2007 and 2008-2012 respectively across the province. In the department of San Rafael, during the 2003-2007 quinquennial, 362 patients were diagnosed with breast cancer, representing 32.5% of all cancers in women. Consequently, during the 2008-2012 quinquennial, an au-ment in the incidence was recorded, with 412 new cases, representing 33.9% of all cancer cases in women (Graph 1). The age-adjusted (world) incidence rates of breast cancer in San Rafael were 65.5/100.¹²



Graph 1 Incidence of cancer in women. St. Raphael. Fifth Anniversary 2008-2.

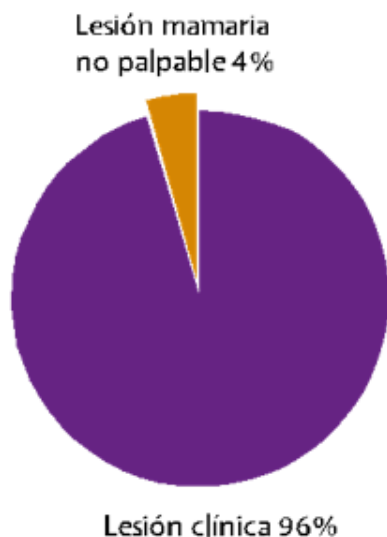
Clinico-pathological variables of breast cancer in the Regional Hospital

The mean age of the 51 patients at the time of diagnosis was 53 years, with a etary range of 24 to 81 years: 10 patients (19.6 %) were younger than 40 years at diagnosis; 14 patients (27.5%) belonged to the etary group between 40 and 49 years; 10 patients (19.6%) were between 50 and 59 years; in 12 patients (23.5%) the age was between 60 and 69 years; and 5 patients (9.8%) presented 70 or older at the time of diagnosis. Of the total patients, 24 were premenopausal at the time of diagnosis and 26 were postmenopausal. And 1 case was diagnosed in men (2%).

The stadiums of presentation at the time of diagnosis were: Stadium O: 3 patients (5.6%); Stage I: 8 patients (15.7%); Stage II: 19 patients (37.2%); Stage III: 16 patients (31.4%); and Stage IV: 5 patients (9.8%).

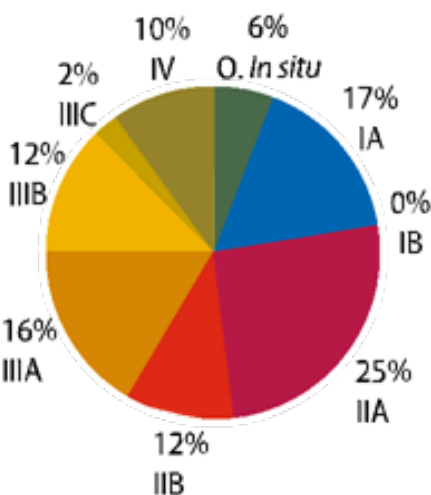
Those who consulted with clinical injury (all by self-examination) were 49 patients (96.1%) of the 51 treated; there were only 2 (3.9%)

with subclinical diagnosis by imaging detection (mammography and breast ultrasound), both within Stage I (Graph 2).



Graph 2 Clinical presentation of the patients diagnosed in the Regional Hospital “Teodoro Schestakow”.

Of the 49 patients who presented with clinical breast lesion, 41 (83.7%) manifested breast tumor; 2 (4.1%) presented axillary adenomegalia without palpable breast tumor (one of which was diagnosed as an occult tumor); 2 (4.1%) presented telorrhagia (of which one patient resulted cdis and the other IA Stadium); 4 (8.2%) patients concurred with breast ecematoid lesion in areola-nipple complex with tic diagnosis on incisional biopsy of Paget’s Disease (two cdis, one Stadium IA and the other patient with liver metastasis) (Graph 3).



Graph 3 Stages in diagnosis and treatment. Theodore Schestakow Regional Hospital.

In regards to breast localization, we found 24 patients (47.1%) with carcinoma in right breast, 25 (49%) in left breast, 2 bilateral (3.9%), with highest frequency –in both breasts – in quadrant-te supero-external. The histopathologic varieties were: invasive ductal carcinoma, 39 patients (76.5%); invasive lobulillar carcinoma, 5 patients (9.8%); 1 patient with papillary carcinoma (2%); 1 patient with occult carci-noma (2%); and 5 patients (9.8%) with Paget’s Disease.

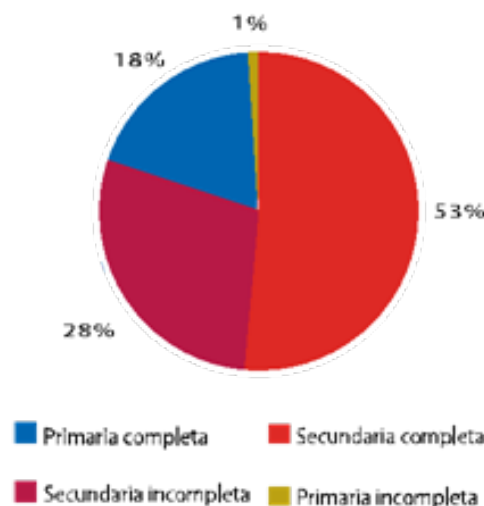
The anatomopathological diagnosis in the majority –30 patients (59 %) – was by thick-needle biopsy (core biopsy); in the 5 patients (9.8%) who presented with Paget’s Disease, the histopathologic diagnosis was made by punch; and the remainder –16 patients (31.4%)– of the diagnoses were made by intraoperative biopsy.

The initial treatment after breast carcinoma staging was mostly surgical (40 patients–78.4 %), performing conservative breast surgery in 27 patients (67.5% of initial surgical-co treatment), modified radical mastectomy in 12 patients (30% of the initial surgical treatment) and 1 axillary voiding (2.5%) in the patient who presented with occult carcinoma. Twenty-three sentinel node biopsies were carried out (bgc), resulting negative for neoplastic invasion in 14 patients (60.9% of the bgc).

The initial systemic treatment was as follows: in 6 patients neoadjuvant chemotherapy; and in 5 patients diagnosed with Stage IV palliative chemotherapy.

Level of knowledge regarding breast control

A total of 97 female patients were interviewed, with a mean etarian age of 50 years (range 22 to 73 years). Regarding schooling, 51 patients had completed secondary education (53%); among the others, all presented some degree of schooling (only 1 patient referred primary incomplete). All patients interpreted the questionnaire well (Graph 4).



Graph 4 Schooling of surveyed patients in health centers.

Only 21 women (22%) referred to performing their annual clinical breast check; they are all over 40 and represent 27% of the over 40s. Of the patients surveyed, about 30% indicated presenting some first- or second-degree family member with breast cancer. Some 89% of women interviewed refer to seeing their gynecologist or clinician annually, for general or specific control of their non-breast pathology, with highest index of gynecologist visits in the etary group under 50 years and with highest clinician visits in those women 50 or older. Of the 86 patients who annually attend clinical or gynecologic check-up, only 6 (7%) referred to having undergone clinical breast examination at the consult. Of the total women surveyed, 56 (57.7%) declared having had at least one mammogram during their lifetime, representing 73% of patients older than 40 years. Conversely, no patients younger than 40 years referred to having had a mammogram, whereas only 11 patients (14% of those older than 40 years) undergo annual mammogram screening. 24% of patients surveyed say monthly

breast self-examination. On the other hand, 90 patients (92.3%) consider that the visit to the specialist in breast diseases should only be made before the presence of some symptom: 58 patients consider it as symptom of most importance to mastalgia, 31 patients to presence of breast tumor and 1 patient to nipple effusion. while only 11 patients (14% of those older than 40 years) undergo annual mammographic screening. 24% of patients surveyed say monthly breast self-examination. On the other hand, 90 patients (92.3%) consider that the visit to the specialist in breast diseases should only be made before the presence of some symptom: 58 patients consider it as symptom of most importance to mastalgia, 31 patients to presence of breast tumor and 1 patient to nipple effusion. while only 11 patients (14% of those older than 40 years) undergo annual mammographic screening. 24% of patients surveyed say monthly breast self-examination. On the other hand, 90 patients (92.3%) consider that the visit to the specialist in breast diseases should only be made before the presence of some symptom: 58 patients consider it as symptom of most importance to mastalgia, 31 patients to presence of breast tumor and 1 patient to nipple effusion.

Discussion

In this study, we initially performed an analysis of the epidemiological situation of breast cancer in the Department of San Rafael, based on the data of the Mendoza Provincial Tumor Registry. In coincidence with other series, we found that breast cancer is the leading cause of cancer in Sanrafaelina women, although with a relative incidence higher than globally (33.9% versus 25.1%).⁴ In addition, an increase in the incidence of breast cancer was recorded in the last 5 years in San Rafael. Similarly, this has been observed in the United States in African American women, due to the increase in obesity in postmenopausal women.¹ When considering the Province of Mendoza, the age-adjusted rate for breast cancer incidence was levemente higher than in Argentina (73.4 versus 71.2), presenting figures similar to regions with higher incidence globally. It could not be determine the age-adjusted rate for breast cancer mortality in the San Rafael Department due to the fact that it is not a variable tabulated by the Tumor Registry dependent on the Ministry of Health, Social Development and Sports, Government of Mendoza.

Then, we evaluated the clinic pathologic variables of the patients diagnosed and treated for breast cancer at the Regional Hospital of San Rafael "Teodoro J. Schestakow", where 96% of those patients concurred with clinical breast injury and, of the total of patients, 41% with Stages III and IV. These data are similar to those in areas of little medical coverage and those in other developing countries where there is up to a 50% incidence in locally advanced breast carcinomas (cmla); on the contrary, the situation referred to is very different from that occurring in the United States where, with periodic screening programs, the cml are presents only a 5%.^{13,14}

Finally, we inquired about the level of knowledge regarding breast control among women attending control at peripheral primary Health care centers in San Rafael. According to the results obtained in this study, we can say that, despite not counting with comparative prior studies in regards to such knowledge, we observe a fault in breastfeeding diagnosis and prevention in these surveyed San Rafael health centers. Counting on a high literacy index of the interviewed women, with adequate understanding of what we tried to convey in the questionnaire, and corroborating that patients refer to regularly consulting the clinician and gynecologist (89% of annual consultation), we discovered a flaw in medical care,¹⁵ and only 14% of patients older than 40 present for their annual mammogram. This adds to the ignorance of the in-surveyed population regarding breast cancer prevention, as 92% of women indicate that they should attend

consultation before any breast symptom (mastalgia, tumor, nipple discharge).

This primary neglect so far from breast screening –whose systematic implementation, as is well known, reduces breast cancer mortality by an average of 46%,¹⁶ and in the United States it decreased its incidence by 10%, with a mortality reduction benefit of 15% in patients under 50 years of age¹⁷– is potentially translated into the advanced stages observed in patients diagnosed and treated for breast cancer at the "Teodoro Schestakow" Hospital.

Conclusion

Breast cancer is the leading cause of cancer in sanrafaelina women, being diagnosed mostly in symptomatic patients. This is probably reflected in the higher proportion of advanced stadiums detected. Additionally, there exists low adherence to breast examination by health effectors and inadequate information of the female population regarding alarm symptoms.

Therefore, we consider that the data relayed in this paper speak to us about the convenience and opportunity to conduct prevention campaigns aimed at the population, as well as to educate the health effectors of the peripheral centres.

It is important to know the distribution of diseases not only in the world and in the country, but in the environment in which each develops its action. Mendoza has many peripheral primary care centers that, as we can see in the work, do not fulfill the basic function, namely prevention, in the case of breast cancer, early detection or secondary prevention, which would allow us to provide assistance to diseases in central hospitals at earlier stages, with less invasive surgeries and with lower number of comorbidities, reduced expenditures on costly systemic treatments, with better psychological effect on patients and better survival.

There must be a commitment on the part of national, provincial and municipal authorities to give importance to prevention, with population-targeted campaigns and with adequate staff training that provides clinical breast control, alongside a disease registration equipment by means of which, through periodic analyses, population trends in regard to health and prevalent diseases can be seen.

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Conflicts of interest

Author declares that there are no conflicts of interest.

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