Individual prevention and organized screening: a reflection on data of the early detection of breast cancer in Emilia-Romagna, and in Bologna in particular, after the reorganization of the offering

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Introduction

The data (2002-2016) from the Regional Health Service of Emilia-Romagna on the access to the mammographic services in the Local Health Authorities (AUSLs) of the region (data accessed as generalized risk access) allowed (poster at AUA Meeting 2017) to identify the different choices (YES screening, NO screening) for the early detection of breast cancer undertaken by the women in Bologna and in the other AUSLs in Emilia-Romagna after the solutions adopted after 2010 to deal with the problems of waiting lists and the control of spending for the services of early detection of breast cancer, redirecting the services toward the screening of public health interest at AUA Meeting 2017.

To better understand what happened in the early detection of breast cancer in Bologna after 2010, women residing in the Bologna AUSL who underwent at least one mammogram in 2010 in spontaneous access or in a scheduled screening were taken into consideration and the choices they made in the following years up to 2016, the last available year, were analyzed (paper at WEAK meeting in March 2020).

This analysis appears that 58.1% of women who had one or more mammograms through spontaneous access in 2010 progressively did not have any more mammograms (at least within the National Health Service), neither in spontaneous access nor in scheduled screening.

Now in this new paper we examine the different behavioral patterns of women with respect to early detection of breast cancer in Emilia-Romagna, and in particular in Bologna, and we study their different reactions to changes in the offering. We, therefore, want to compare our results with the new debate taking place in Italy (National Screening Observatory, Italian Group for Mammographic Screening, Surveillance PNSI of the Istituto Superiore di Sanità) on the early detection of breast cancer and on the organised screening.

Methods and Materials

From the AUSL data (Assistenza Specchiale Ambulatoriale - Outpatient Specialised Assistance) the bilateral mammographic services related to women resident in Emilia-Romagna who carried out the service in an Emilia-Romagna facility under the Italian national regime.

In the received file (about 5,000,000 bilateral mammographic services records) the following fields are present: YEAR identifies the year in which the service was performed; IDENT_AU identificative number of the Health Authority of territorial location of the supplying structure; COD_ST: identifies the code of the supplying structure through STS1 coding; COD_ST: identifies the code of the supplying structure and the name of the code at 2016 list of the structures of the past years have a name, for example the structures coded, which is why the code was also given; LUS RES: identifies the Local Health Authorities (AUSLs) of residence of the client; ID_RU: number of the resident in the province; PRESTAT: identifies the code and the name of the bilateral mammographic; D_TDO: identifies the delivery day; EKT: identifies the age of the patient at the time the service is provided: Screen: for services performed in screening, not for any eventual intervention in another way.

The AUSL database has existed since 2002 and entered into force after 2005. The year 2016 was delivered not yet completely because there is an in data sending.

In this new data we aimed to evaluate the personal impact of the organisation of the offer of the early detection services for breast cancer for women that want to access to mammograms and to describe the choices of women (in the AUSL of Bologna) and how they dealt with the modification of the offer from year to year starting from the regional provisions of 2010.

Results

But not too happened within the health system since the Emilia-Romagna Regional Health service decided to adapt measures to contain waiting in 2010 and the Bologna AUSL it was decided to redirect the early detection of breast cancer in spontaneous access to the population screening according to the recommendations of the National health service.

First of all, in Italy and Emilia-Romagna the importance of the Mammographic screening to breast cancer is a new topic that the “prevention and effectiveness of mammographic screening group” of the nomenclature of the AUSLs accompanied the advice of your doctor or a health care professional to women for the importance of its regular performance.

A Life Course

Those women who at the time of the mammographic screening were aged 50-69 years were identified as “women in the period of intervention” and in the AUSL of Bologna all those who are older (78,000 women) were identified as “women undergoing mammography”.

To better understand what happened in the early detection of breast cancer in Bologna after 2010, women residing in the Bologna AUSL who underwent at least one mammogram in 2010 in spontaneous access were taken into consideration (11,685 of which 14,175 were 69 years and over and could progressively exit early detection in subsequent years) or in scheduled screening (5,445 of which 6,936 were 65 years or over and could progressively exit early detection in subsequent years) and the choices they made in the following years up to 2016, the last available year, were analyzed.

Women who in 2010 had made early detection of breast cancer through spontaneous access mammograms in the following years had less loss access to spontaneous access mammograms, with a progressive decline that led them to access to 34,484 spontaneous access mammograms in 2016. If from 2011 to 2013 they increased access to mammograms in scheduled screening, and from 2014 they remained extremely constant in the type of access to early detection until 2016, on the other hand between 2013 and 2015 there was a drop in the non-performance of mammograms neither in spontaneous access, nor in scheduled screening which was then maintained until 2016. Thus in 2016 it appears that 58.1% of women who had had one or more mammograms in 2010 had access to the early detection of breast cancer in spontaneous access only.

After the changes in the organisation of the offer of early detection services in the Bologna AUSL, of 2011-2012, progressively did not have any more mammograms, neither in spontaneous access nor in scheduled screening. From the database, obtained in city access by the Regional Health Service (SRH), it is not possible to know if there has been a definitive abandonment of the early detection of breast cancer. If women have opted for mammograms with direct payment out of pocket, perhaps in view of inconsistencies in the public structures (Gatti, 2016; Gatti, 2017) 28.9% of women who had had one or more mammograms in 2010 progressively opted for mammograms in scheduled screening and progressively only 11.6% of them still underwent spontaneous access mammograms (Fig. 1).

The trend of mammograms for the early detection of breast cancer in the period 2011-2016 of the women of the AUSL of Bologna who in 2010 underwent one or more mammograms in scheduled screening seems to be able to be explained in the biennial frequency of scheduled screening, and here too with a progressive abandonment of mammograms (at least within the National Health Service) (Fig. 1).

A Longitudinal Study

To better understand what happened in the early detection of breast cancer in Bologna after 2010, women residing in the Bologna AUSL who underwent at least one mammogram in 2010 in spontaneous access were taken into consideration (11,685 of which 14,175 were 69 years and over and could progressively exit early detection in subsequent years) or in scheduled screening (5,445 of which 6,936 were 65 years or over and could progressively exit early detection in subsequent years) and the choices they made in the following years up to 2016, the last available year, were analyzed.

The number of women who had one or more mammograms increases in women who had undergone one mammogram in 2010 and who remained in spontaneous access throughout the years, and the number of women who had one or more mammograms in 2010 who enrolled in the mammographic screening programme increased in both the years of mammographic screening (Fig. 2).

Other changes have occurred. For the early detection of breast cancer, work is being done on customizing it with respect to the characteristics of each woman. For this reason the Ministry of Health decided to redirect the early detection of breast cancer to the population screening under the auspices of the National Health Service, and to maintain this involvement also in a situation that has changed considerably from 2010 onwards, and that forced them to leave from May 2011 a usual and high-level adherence is maintained. Another group, still managing to receive the mammogram in spontaneous access, maintains the annual frequency. 34 women from 2013 to 2014 there was a substantial group that shows the maintenance of a good cadence.

Conclusions

The possibility of having access as a citizen to the data on the early detection of breast cancer in Emilia-Romagna is an important tool for assessing the impact of the changes in health policies at regional and local level. In the meantime, work is still being done on different fronts, and this time perhaps with the needs of the person at the center, to improve the early detection of breast cancer.

With 360,000 new diagnoses and 92,000 deaths each year in Europe, breast cancer remains the most common cancer in women, but is more often curable if diagnosed early enough.

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Figure A. The City of Bologna

Figure B. Preventive mammogram on the

Figure C. Women 50-69 reported receiving health

assistance to have regular preventive mammograms

Figure D. Preventive mammogram on the

Figure E. Preventive mammogram on the

Figure F. Preventive mammogram on the

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Figure Z. Preventive mammogram on the