

Does participation in an epidemiological study improve appropriate prescription of screening mammography for asymptomatic women?

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Abstract

Background. To analyze the effect of participating in an epidemiological study on quality of care (i.e., appropriate prescription of mammographic screening), we have analyzed data collected in the framework of a cross-sectional study conducted in Italy among women attending menopause clinics.

Methods. In 1997, a large cross-sectional study was organized on the characteristics of women who attended a network of first-level outpatient clinics for general counseling about menopause or treatment of menopausal symptoms. Women consecutively observed during the study were eligible, and the protocol did not set any exclusion criteria. All women who agreed to participate underwent a gynecological examination and were asked about their general characteristics and lifestyle habits, reproductive and menstrual history, and selected medical history. Laboratory and instrumental tests were required on clinical grounds; the protocol did not consider any test mandatory for all women, but all centers were asked to collect information on the examinations prescribed as routine clinical practice. The study began in 1997 in 25 centers. By March 1999, the number of centers had increased to 268 of which 63 were in the north, 81 in the center, and 124 in the south of Italy. Fewer than 3% of eligible women refused to participate. The study included 48,444 women. The present analysis looked at current attitudes toward screening mammography (SM) in asymptomatic women, as prescribed by gynecologists in menopausal centers in Italy.

Results. A SM was correctly requested in 55.6% of women who entered the study during the second semester of 1997. This rose to 72.8% by July–August 2000. The correct prescription of a SM was slightly higher in current users of hormonal replacement therapy (HRT) and lower in women aged 45–50 years, the differences being significant ($P < 0.05$).

Conclusions. These results show that appropriate requests for SM increased in centers participating in a collaborative epidemiological study on menopause in Italy over a 3-year period.

Introduction

It is generally thought that participation in a research project is an important way of acquiring knowledge and encouraging discussion among physicians, and consequently improving clinical care. This thought however, comes from centers that collaborate in clinical trials, whose research protocols require strict procedures and specify tests and therapies.

Participation in observational or epidemiological studies, however, offers another important opportunity to improve clinical care. Physicians are invited to meetings, and to discuss the purpose and the current state of the trial. Scientific sessions are often organized during the meetings. To examine the effect of participating in an epidemiological study on improving quality of care (i.e., appropriate prescription of mammography screening), we have analyzed data that were collected in the framework of a cross-sectional study conducted in Italy among women attending menopause clinics [1–3].

Participants, methods, and results

In Italy, in 1997, a large cross-sectional study was organized to assess the characteristics of women around menopause who attended a network of first-level outpatient clinics for general counseling about menopause or treatment of menopausal symptoms [1–3]. Women consecutively observed during the study were eligible to participate. The study protocol did not set any exclusion criteria. All women who agreed to participate underwent a gynecological examination and were asked about their general characteristics and lifestyle habits, reproductive and menstrual history, and selected medical history. Laboratory and instrumental tests were required on clinical grounds; the protocol did not consider any test mandatory for all women, but all centers were asked to collect information on examinations prescribed as routine clinical practice.

The study started in 1997 in 25 centers. By March 1999 the number of centers had increased to 268, of which 63 were in the north, 81 in the center, and 124 in the south of Italy. Fewer than 3% of eligible women refused to participate.

The present analysis looked at current attitudes toward screening mammography (SM) in asymptomatic women, as prescribed by gynecologists in menopausal centers in Italy. We have defined as appropriate a prescription for a SM in women aged 45 years or more without any history of breast cancer, or clinical symptoms suspicious of breast disease, not reporting any mammography in the 2 years before study entry, or no prescription for women reporting a SM in the 2 years before the interview.

The difference in frequency of an appropriate prescription for SM according to calendar period and selected factors was tested using the usual chi-square test and the chi-square test for trend.

After exclusion of women aged <45 years or those with a history of breast cancer or symptoms of breast disease, a total of 48,444 (mean age 53 years) women observed by August 2000 were included in the analysis.

Table 1 shows the frequency of appropriate prescription for SM according to calendar period and selected factors. A SM was correctly requested in 55.6% of women who entered the study during the second semester of 1997. This practice rose to 72.8% by July-August 2000. The appropriate prescription for a SM was slightly higher in users of hormonal replacement therapy (HRT) and lower in women aged 45–50 years in women with family history of breast cancer, the differences being significant ($P < 0.05$).

Comment

These results show that appropriate requests for SM increased in centers participating in a collaborative epidemiological study on menopause in Italy over a 3-year period. Lacking comparative data about Italian clinical practice outside the study during the same period, we cannot attribute this change only to participation in the study. A slight decrease in the proportion of SM was observed during the second semester of 1999, but after this period we observed an increase that suggests an improvement of quality of care. It suggests that taking part in epidemiological research – even on a limited scale – improves clinical practice. Another point of interest in this analysis is the observation that SM is more frequently required in women with a family history of breast cancer and HRT use.

References

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Table 1

“Appropriate” prescription of a screening mammography according to calendar period and selected factors, Italy 1998–2000

	Mammographic screening	
	Yes [No. (%)]	No (No.)
Calendar period		
2nd semester 1997	4771 (55.6)	3810
1st semester 1998	5199 (57.1)	3901
2nd semester 1998	4417 (55.2)	3580
1st semester 1999	5787 (54.0)	4927
2nd semester 1999	4159 (58.7)	2929
1st semester 2000	2876 (61.0)	1840
July-August 2000	147 (72.8)	55
X ² trend <i>P</i> < 0.05		
Age (years)		
45 - <50	5605 (51.4)	5307
50 - 53	6500 (58.4)	4634
54 - 57	7796 (62.8)	4627
>57	7940 (57.2)	5943
X ² trend n.s.		
Family history of breast cancer		
No	25018 (57.0)	18875
Yes	2883 (63.4)	1668
X ² < 0.05		
Use of Hormone Replacement Therapy		
No	22101 (54.8)	18213
Yes	5800 (71.3)	2330
X ² < 0.05		