L'embaràs després d'un tractament de càncer de mama

Octavi Córdoba

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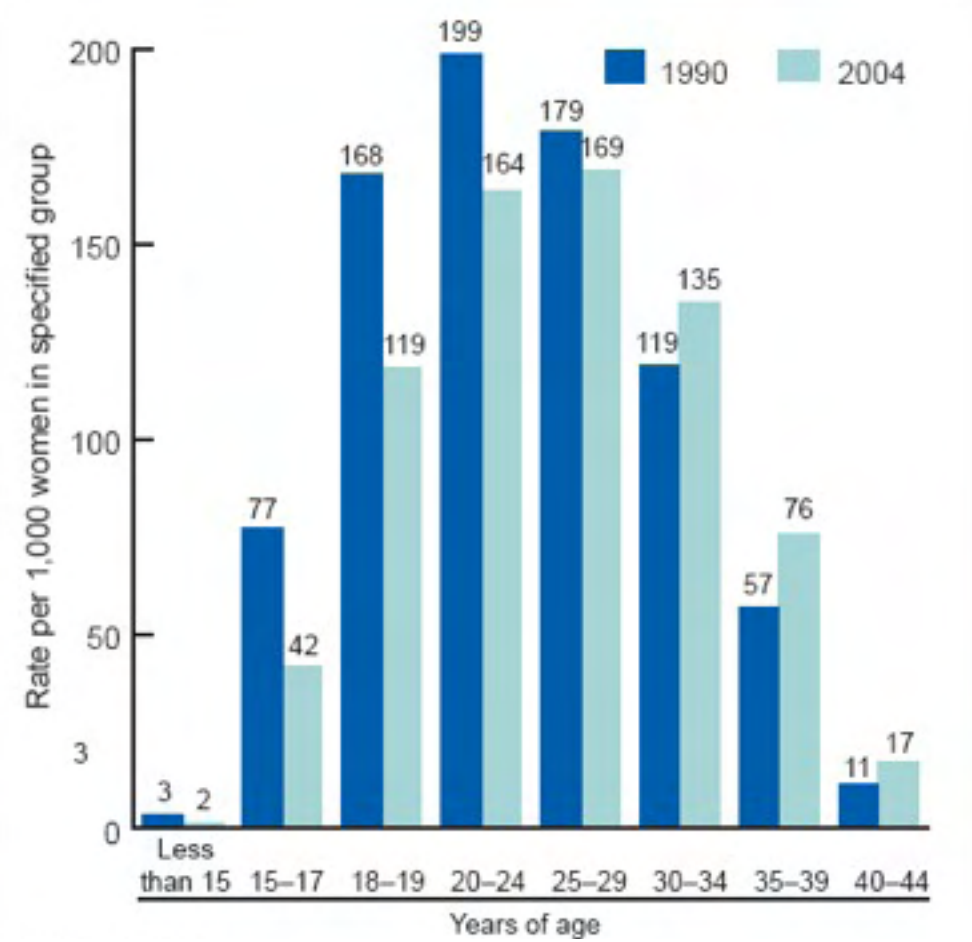
Servei Ginecologia
Hospital Vall d'Hebron
ocordoba@vhebron.net

- **Retraso en la edad de concepción**
- **Aumento de partos en >30 años**



Stephanie N Vital Stat Rep 2008

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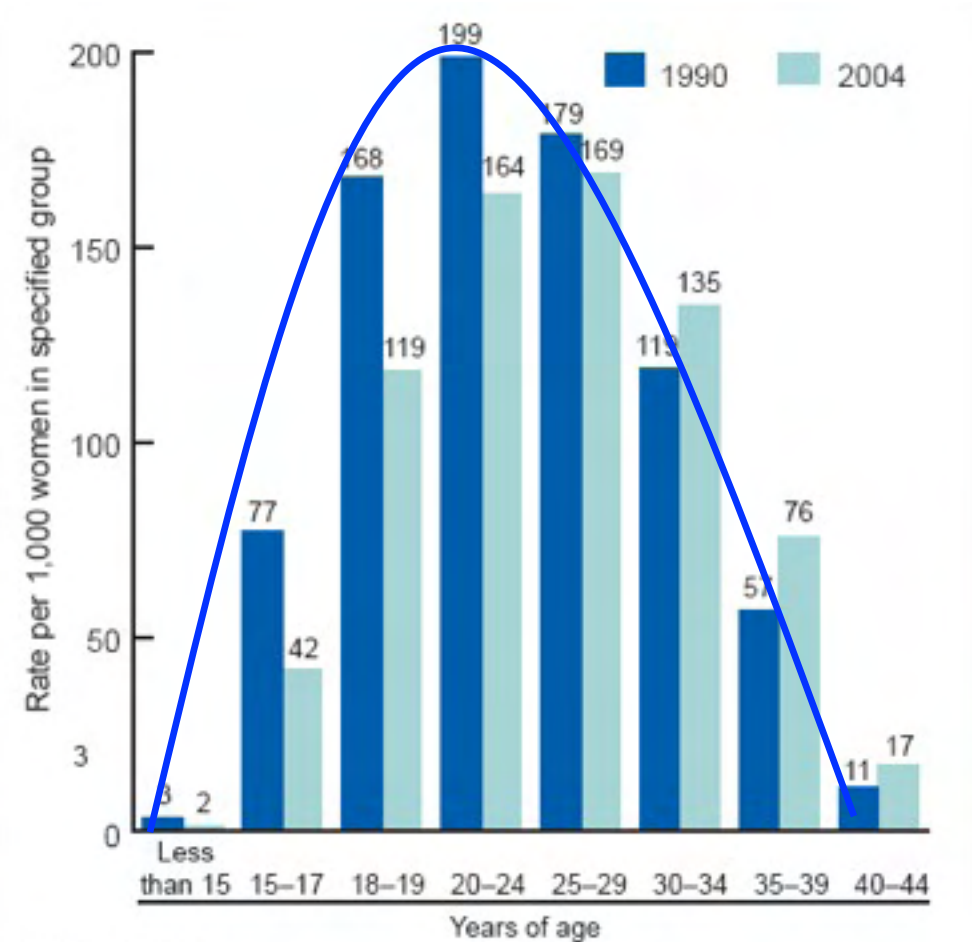

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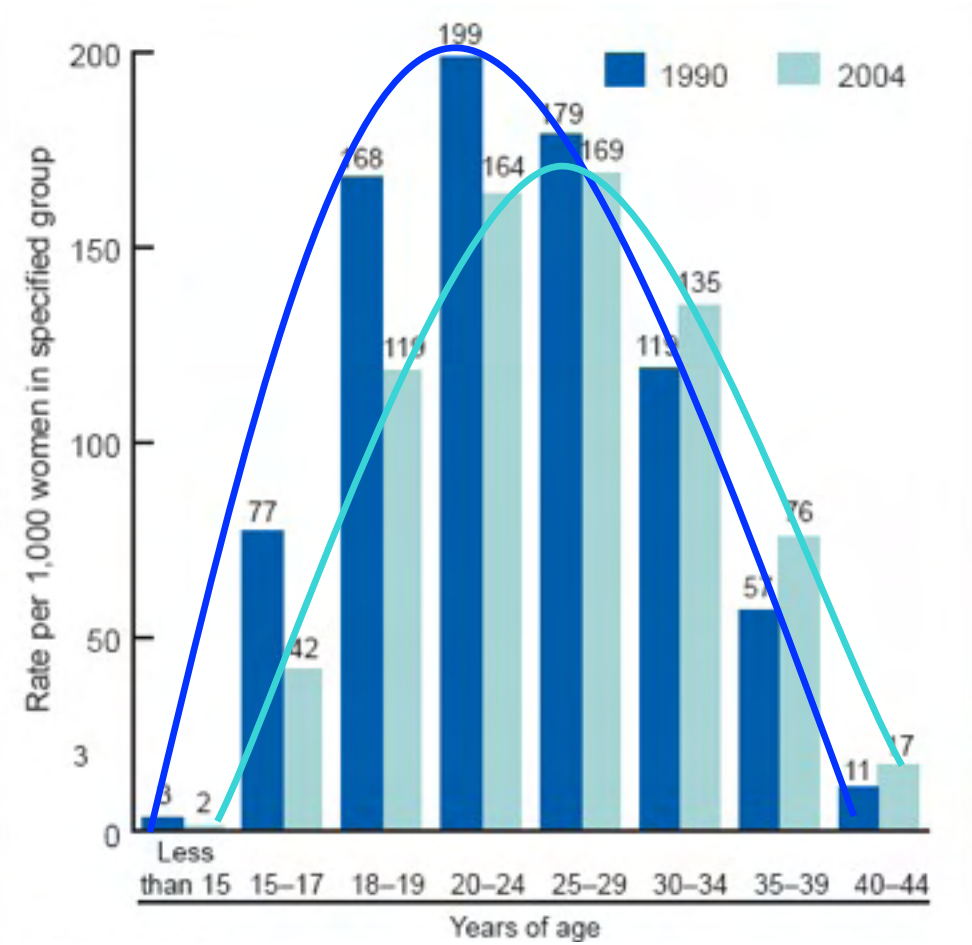
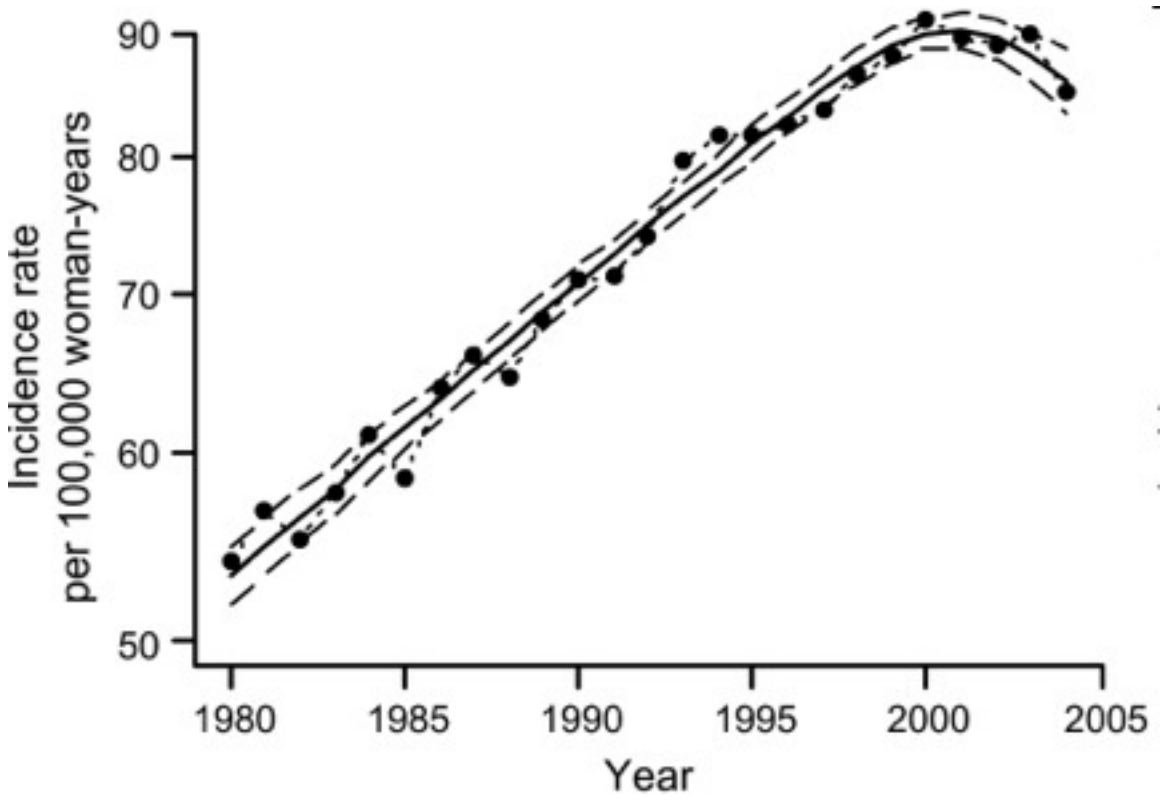


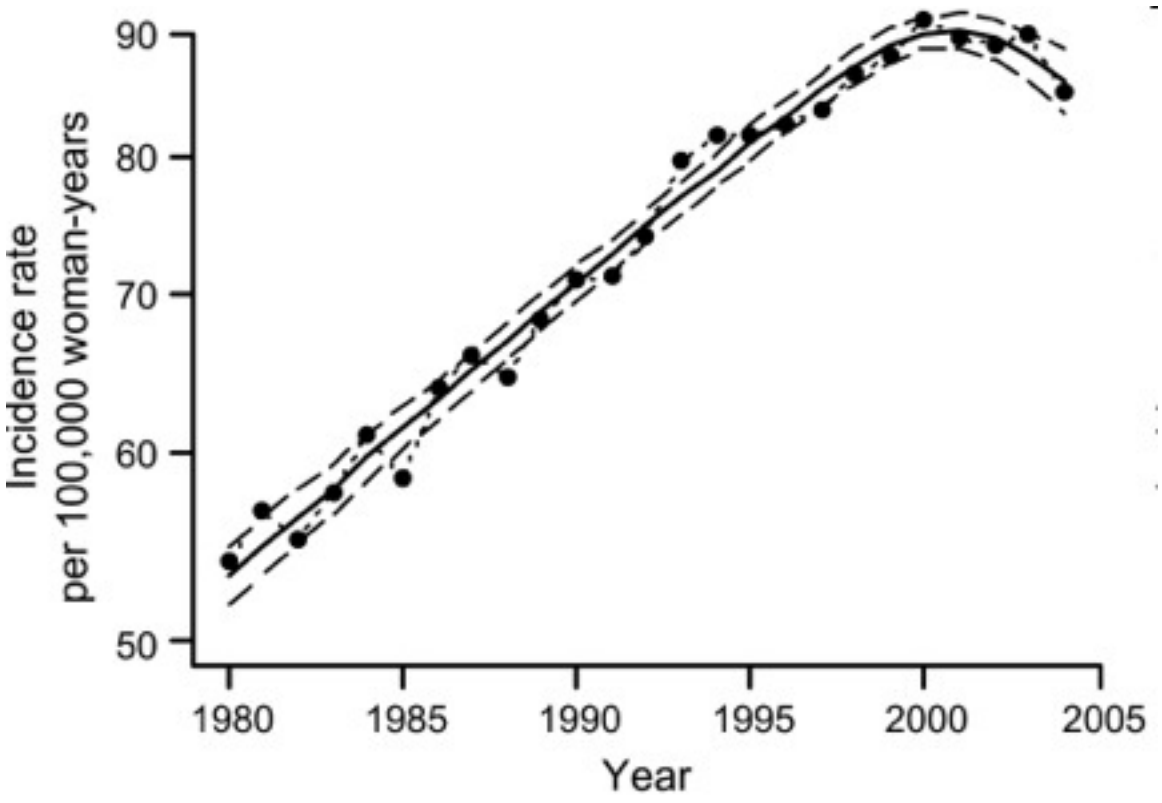
Stephanie N Vital Stat Rep 2008

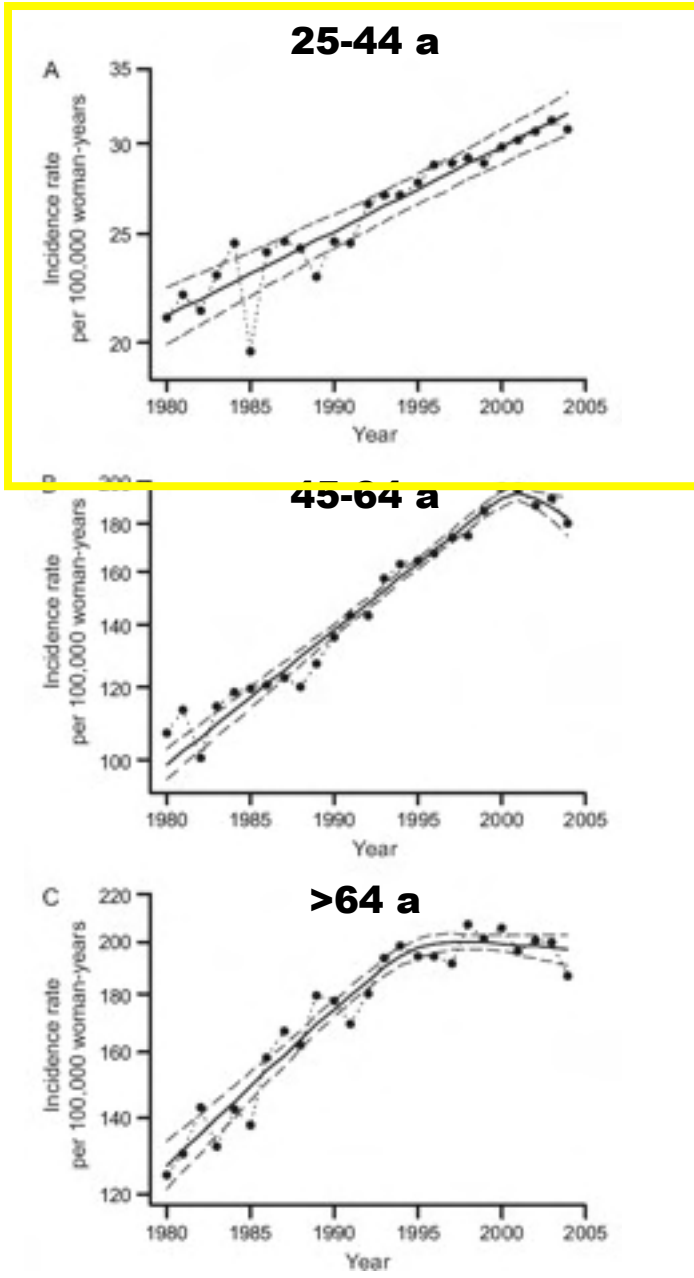
Recent Changes in Breast Cancer Incidence in Spain, 1980–2004



Pollan J Natl Cancer Inst 2009

Recent Changes in Breast Cancer Incidence in Spain, 1980–2004





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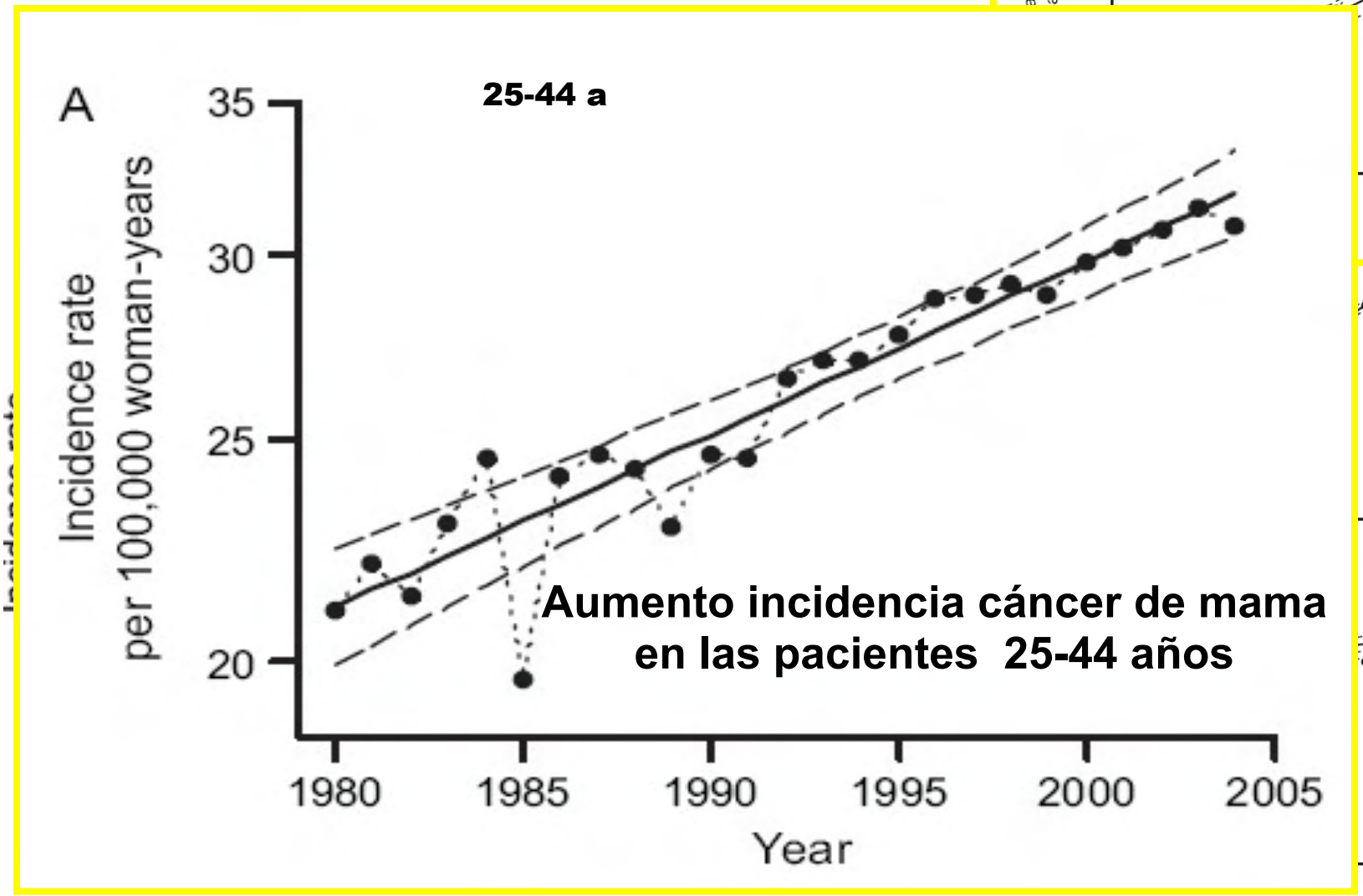

Pollan J Natl Cancer Inst 2009

Diagnostico de cáncer de mama sin deseo reproductivo completado

The Breast xxx (2011) 1–6

Contents lists available at ScienceDirect

The Breast

journal homepage: www.elsevier.com/brst

Original article

The decline in breast cancer mortality in Europe: An update (to 2009)

Cristina Bosetti [a,*], Paola Bertuccio [a], Fabio Levi [b], Liliane Chatenoud [a], Eva Negri [a], Carlo La Vecchia [a,c,d]

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[b] Unité d'epidémiologie du cancer et Registres Vaudois et Neuchâtelois des Tumeurs, Institut de médecine sociale et préventive (IUMSP), Centre Hospitalier Universitaire Vaudois et Université de Lausanne, Lausanne, Switzerland
[c] Department of Occupational Health, Università degli Studi di Milano, Milan, Italy
[d] International Prevention Research Institute, Lyon, France

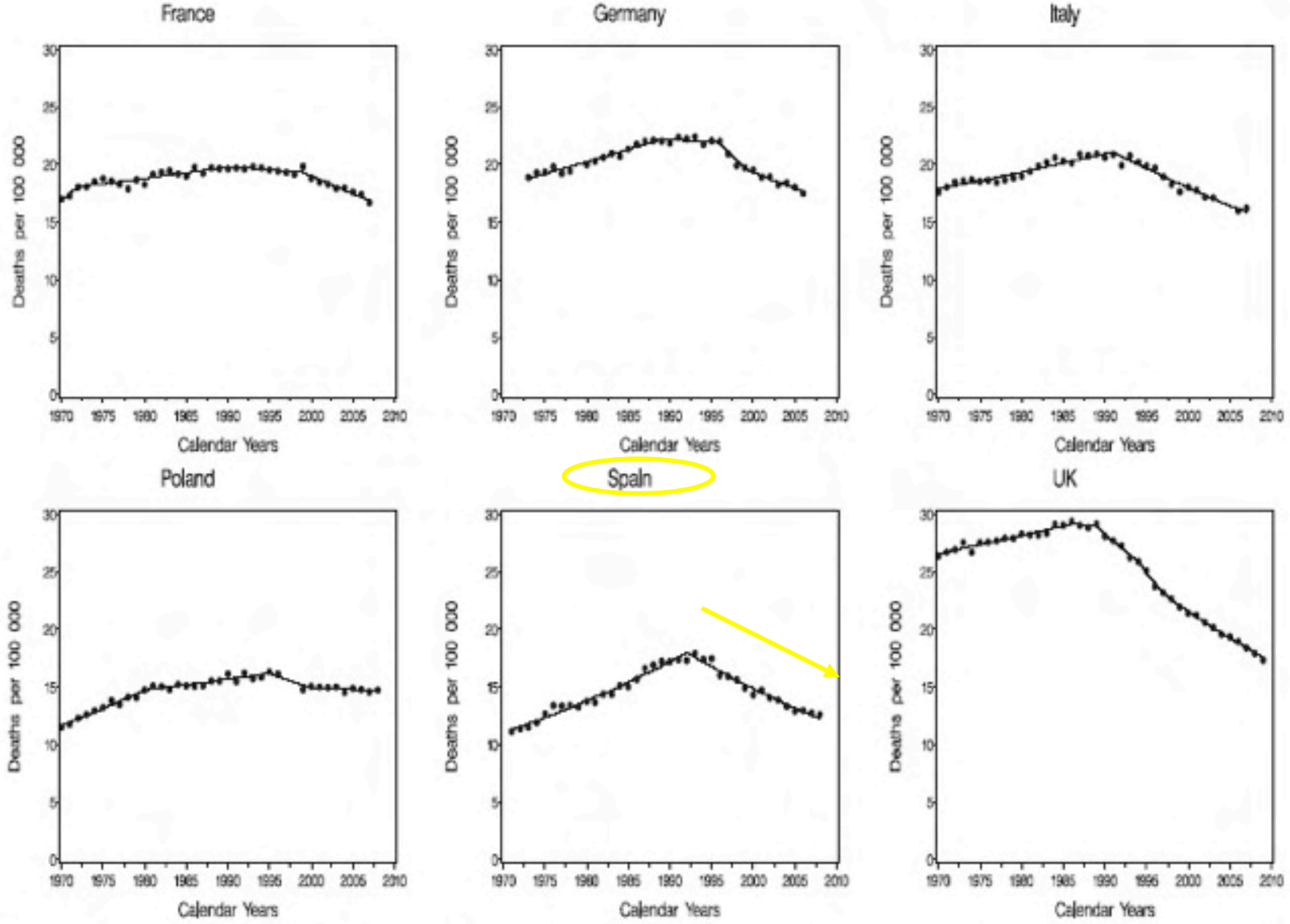
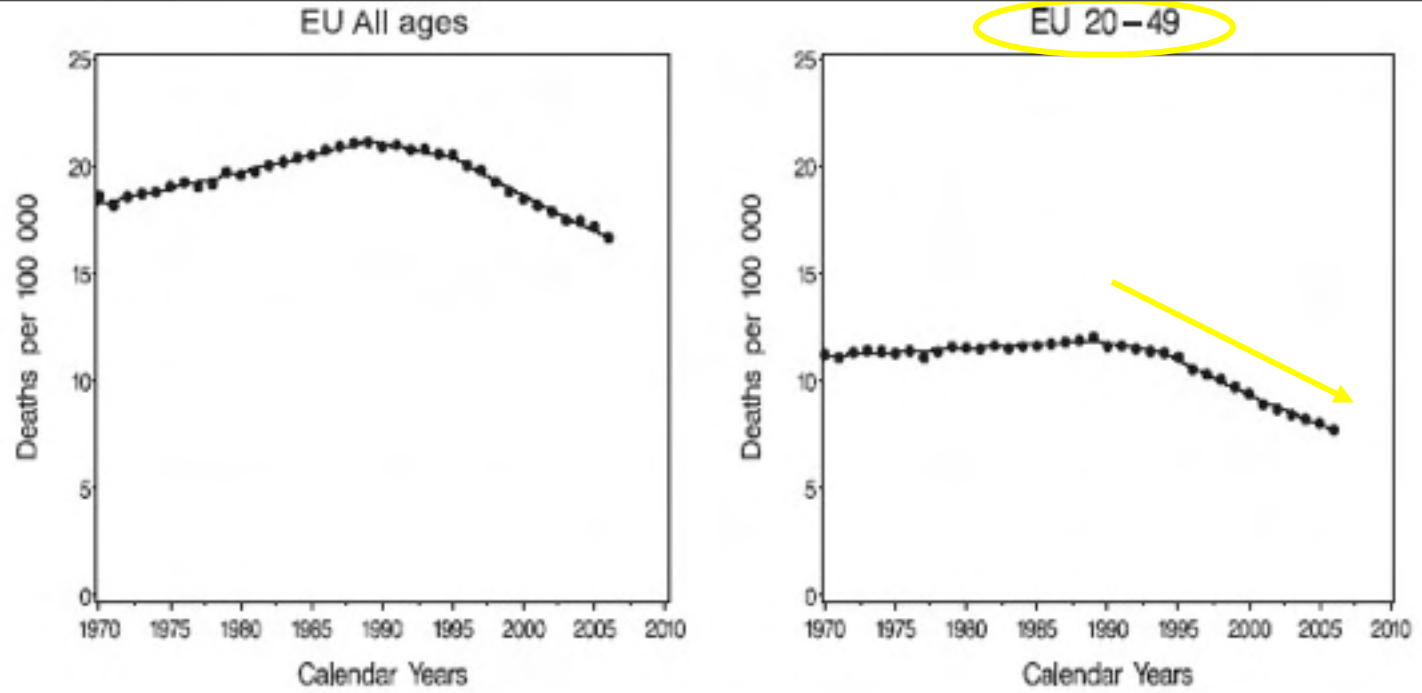
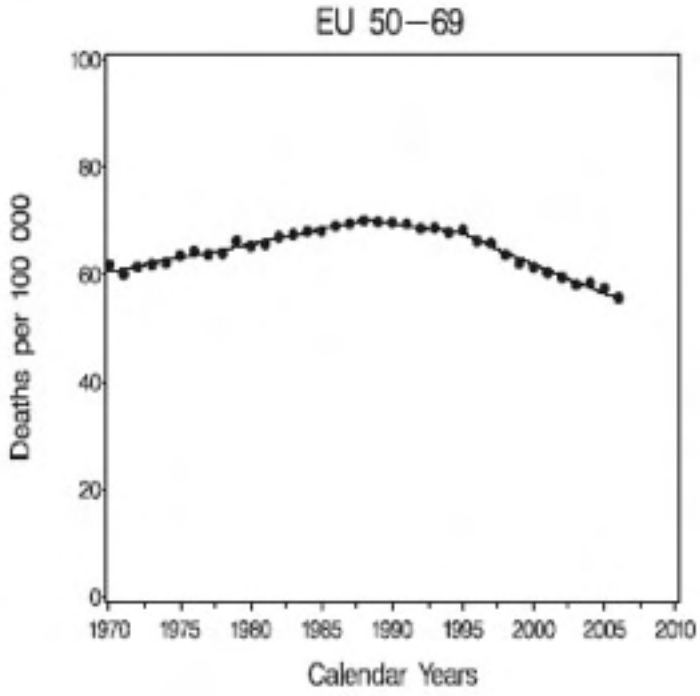
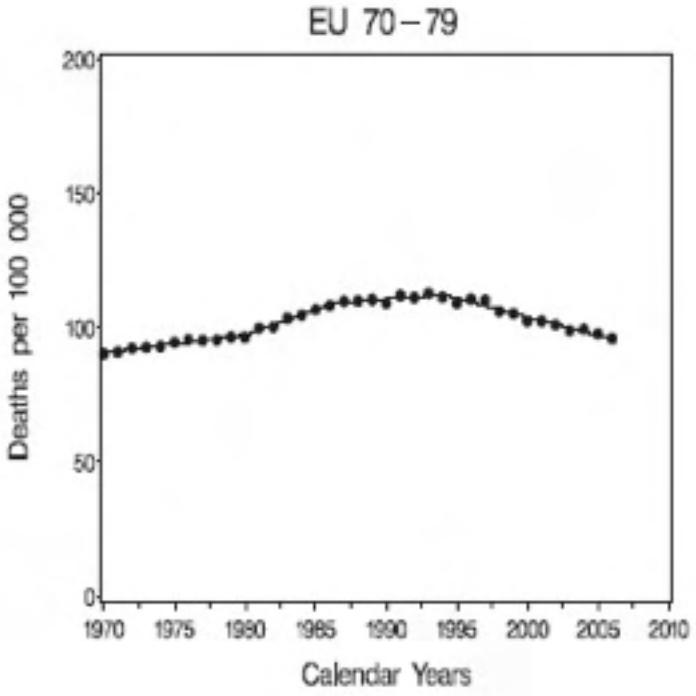


Fig. 3. Joinpoint analysis of trends in age-standardized (world population) mortality rates from breast cancer for women at all ages, in 6 major European countries, 1970–2009.


EU All ages
Deaths per 100 000
0
5
10
15
20
25
1970
1975
1980
1985
1990
1995
2000
2005
2010
Calendar Years

EU 20–49
Deaths per 100 000
0
5
10
15
20
25
1970
1975
1980
1985
1990
1995
2000
2005
2010
Calendar Years


EU 50–69
Deaths per 100 000
0
20
40
60
80
100
1970
1975
1980
1985
1990
1995
2000
2005
2010
Calendar Years


EU 70–79
Deaths per 100 000
0
50
100
150
200
1970
1975
1980
1985
1990
1995
2000
2005
2010
Calendar Years

Age-adjusted (world population) mortality rates from breast cancer per 100,000 women at all ages and at ages 20–49, 50–69, 70–79 in various European countries and in the European Union (EU) as a whole around 1997 (1995–99), 2002 (2000–04) and in 2007 (unless mentioned in parentheses), and corresponding percent changes in rates.

	Women															
	All ages				Age 20–49				Age 50–69				Age 70–79			
	1997	2002	2007	% change 2007/02	1995-99	2000-04	2007	% Change 2007/2002	1997	2002	2007	% change 2007/02	1997	2002	2007	% change 2007/02
Austria	19.8	17.8	15.8	−11.3	9.32	7.58	6.97	−7.99	64.6	58.7	52.5	−10.6	117.4	105.9	85.5	−19.3
Belarus (2000-03)	14.6	14.6	15.1	3.4	10.29	8.94	8.34	−6.77	50.8	52.1	58.1	11.5	61.0	69.2	57.1	−17.5
Belgium (2004, 2005)	24.7	20.5	20.3	−0.9	12.06	9.78	8.29	−15.24	84.8	68.1	71.3	4.7	133.9	114.4	118.2	3.3
Bulgaria	15.8	14.7	15.5	5.4	10.69	8.77	7.02	−19.92	50.7	50.1	54.8	9.4	77.8	73.4	87.5	19.3
Croatia	19.6	18.2	17.3	−5.1	11.29	8.43	8.75	3.80	59.0	57.9	54.1	−6.7	135.9	119.3	96.6	−19.0
Czech Republic	20.1	18.5	14.9	−19.5	8.29	6.54	5.65	−13.51	67.2	59.7	47.6	−20.3	128.6	127.7	94.4	−26.1
Denmark (2006)	27.1	24.0	21.0	−12.4	11.75	8.56	7.15	−16.44	94.0	84.2	70.0	−16.9	158.0	151.8	146.2	−3.7
Estonia	18.9	18.5	14.1	−23.8	11.42	10.24	7.89	−22.93	67.1	65.8	44.9	−31.8	84.8	91.2	86.1	−5.6
Finland	16.6	15.2	14.4	−5.1	9.57	7.63	6.90	−9.46	54.8	50.0	48.0	−4.1	87.4	90.3	85.8	−4.9
France	19.5	18.3	16.7	−8.8	10.02	9.18	8.09	−11.78	66.0	61.0	55.0	−9.8	104.1	102.6	96.4	−6.0
Germany (2006)	20.9	18.8	17.5	−7.0	10.48	8.31	6.94	−16.40	69.6	63.8	60.1	−5.8	118.6	110.2	106.9	−3.0
Greece	15.2	15.1	15.3	2.0	7.93	6.93	7.10	2.49	49.9	46.3	44.4	−4.2	82.6	96.0	96.1	0.0
Hungary	23.1	21.8	18.2	−16.3	11.84	10.64	8.14	−23.45	74.6	72.5	61.8	−14.8	129.8	121.8	109.2	−10.3
Ireland	24.5	22.6	18.7	−17.2	11.87	10.46	7.91	−24.34	86.5	78.1	62.7	−19.6	126.0	126.4	120.8	−4.4
Italy (2000–03)	18.9	17.5	16.2	−7.5	9.68	8.55	7.56	−11.65	62.7	58.4	53.9	−7.7	105.3	98.9	92.4	−6.6
Latvia	17.4	17.9	15.7	−12.0	12.11	10.39	9.46	−8.97	56.8	63.1	53.9	−14.6	87.1	86.3	80.8	−6.3
Lithuania	18.3	17.8	16.7	−6.3	12.06	10.21	8.26	−19.14	63.6	61.7	59.0	−4.3	79.6	94.5	91.2	−3.5
Luxembourg	18.2	18.1	13.6	−24.8	9.14	8.93	3.21	−64.02	57.5	56.9	49.8	−12.5	113.9	107.0	86.1	−19.6
Malta	26.5	21.2	19.6	−7.7	10.66	8.09	9.75	20.45	87.4	74.5	71.6	−3.9	154.1	135.5	92.6	−31.7
Netherlands	25.2	22.3	19.1	−14.2	12.70	11.43	8.94	−21.81	82.3	72.0	63.1	−12.3	142.1	122.6	105.8	−13.7
Norway	18.1	16.2	13.5	−16.5	9.82	8.06	6.44	−20.06	58.0	52.8	45.3	−14.2	101.2	91.0	69.7	−23.4
Poland (1995-96, 1999)	15.7	14.9	14.6	−2.4	9.11	7.54	6.23	−17.42	52.8	51.9	52.1	0.5	82.5	78.6	80.5	2.4
Portugal	16.7	15.1	14.0	−7.6	10.22	8.51	8.91	4.71	53.4	49.0	42.2	−13.9	85.0	80.4	72.5	−9.9
Romania	15.9	16.3	15.6	−4.3	10.20	9.39	7.73	−17.70	53.9	55.4	55.7	0.6	77.7	85.2	79.8	−6.4
Russian Federation (2006)	16.7	17.3	16.9	−2.4	11.27	10.03	8.74	−12.83	58.0	62.5	62.3	−0.4	73.7	79.9	80.4	0.7
Slovenia			20.6		19.2	16.4	−14.2		10.37		7.87		6.14	−21.98		
Spain			16.0		14.1	12.8	−9.2		9.66		7.86		7.35	−6.51		
Sweden			16.4		15.5	13.6	−12.4		8.53		7.55		6.21	−17.85		
Ukraine (2006)	17.8	17.9	17.7	−0.9	13.05	11.47	10.76	−6.19	61.9	65.2	65.8	0.9	70.8	75.2	73.5	−2.3
United Kingdom	23.3	20.6	18.4	−10.8	12.09	10.20	9.04	−11.42	76.5	66.3	58.2	−12.2	132.8	119.3	110.2	−7.7
EU (2006)	19.7	17.9	16.7	−6.9	10.37	8.76	7.74	−11.59	65.2	59.5	55.6	−6.6	108.3	101.0	96.0	−5.0

Having Children after Cancer

A Pilot Survey of Survivors' Attitudes and Experiences

Leslie R. Schover, Ph.D.
Lisa A. Rybicki, M.S.
Beth Anne Martin, Ph.D.
Karen A. Bringelsen, M.D.

The Cleveland Clinic Foundation, Cleveland, Ohio.

Presented in part at the Fifth International Conference on Long Term Complications of Treatment of Children and Adolescents for Cancer, Niagra-on-the-Lake, Ontario, Canada, June 19, 1998.

BACKGROUND. Although the prevalence of infertility after cancer treatment and the health of the offspring of survivors have been studied, little information has been available about survivors' attitudes, emotions, and choices with regard to having children.

METHODS. A questionnaire was received by 283 patients from the Cleveland Clinic Foundation tumor registry who were diagnosed before age 35 years, were age 18 years or older at the time of the survey, and were free of disease. The SF-36, a measure of health-related quality of life, was included, as well as questions about demographic and medical background, reproductive and fertility history, and a variety of concerns about having children after cancer.

RESULTS. The response rate to the survey was 47%, yielding a sample of 43 men and 89 women who had had cancer at various sites. Their mean age at diagnosis was 26 years and the mean time since diagnosis was 5 years. Before cancer, 35% had at least 1 child, compared with 46% currently. Of those currently childless, 76% want children in the future. Although about half of the entire sample view themselves as having impaired fertility, only 6% have undergone infertility treatment. Nineteen percent have significant anxiety that their cancer treatment could impact negatively on their children's future health. Of women, 18% fear that a pregnancy could trigger a cancer recurrence. Only 57% received information from their health care providers about infertility after cancer. Other reproductive concerns were discussed less often. Only 24% of childless men banked sperm before treatment. SF-36 scores were very similar to normative data for healthy Americans of similar age. About 80% of the sample viewed themselves positively as actual or potential parents. Feeling healthy enough to be a good parent after cancer was the strongest predictor ($P < 0.001$) of emotional well-being as measured by the Mental Component Score of the SF-36.

CONCLUSIONS. The great majority of younger cancer survivors see their cancer experience as potentially making them better parents. Those who are childless want to have children in the future. Many, however, are left with significant anxieties and insufficient information about reproductive issues. *Cancer* **1999;86: 697–709.** © *1999 American Cancer Society.*

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TABLE 6
Questions about Parenthood after Cancer

How much do you agree with each of the following statements?	% Agree	% Unsure	% Disagree
My experience of cancer has made or will make me a better parent.	78%	17%	5%
Even if I died young, I would still want to be a parent.	60%	22%	18%
I would not want to leave my partner with young children to raise as a single parent if something happened to me.	58%	18%	24%
I see myself as healthy enough to be a good parent.	94%	4%	2%
Being a cancer survivor has limited my ability to take good care of a child financially.	15%	5%	80%
Being a cancer survivor has limited my chances of attracting the right kind of mate to help me start a family.	12%	9%	79%
I think my children would be at higher than normal risk for developing cancer.	38%	38%	24%
I think my cancer treatment could cause health problems for my children.	9%	39%	52%

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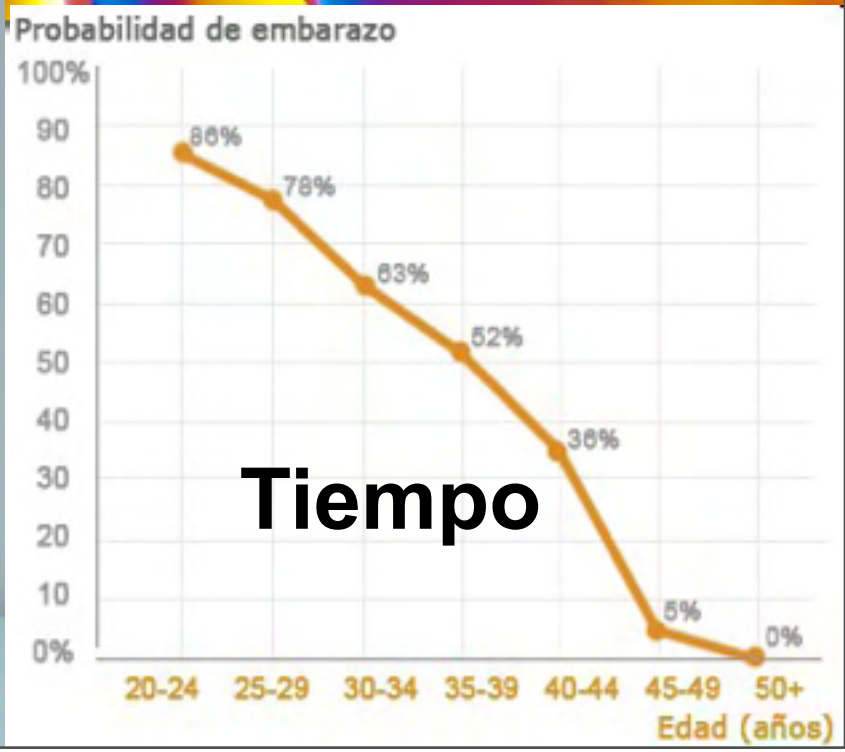
Presented in part at the Fifth International Conference on Long Term Complications of Treatment of Children and Adolescents for Cancer, Niagra-on-the-Lake, Ontario, Canada, June 19, 1998.


Mejoría supervivencia
Mejoría en tratamiento quirúrgico (conservadores, ganglio centinela)
Mejorar calidad de vida

El tratamiento del cáncer de mama disminuirá las posibilidades de embarazo

Quimioterapia



Breast Cancer Res Treat (2008) 108:1–7
DOI 10.1007/s10549-007-9572-1

REVIEW

Controversies in preservation of ovary function and fertility in patients with breast cancer

Bernd Gerber · Max Dieterich · Heiner Müller · Toralf Reimer

Técnicas de preservación de fertilidad

¿En cáncer de mama?

DOI: 10.1111/j.1075-122X.2006.00277.x

CASE REPORTS

Pregnancy After Breast Cancer: A Case Study Resolving the Reproductive Challenge with a Gestational Surrogate

Michael L. Krychman, MD,* and Tari King, MD†

*Gynecology Service and †Breast Service, Department of Surgery, Memorial Sloan-Kettering Cancer Center, New York, New York

Estrógenos y cáncer de mama

- La ooforectomia mejora el pronóstico (Beatson Lancet 1896)

104 THE LANCET.] DR. BEATSON: INOPERABLE CASES OF CARCINOMA OF THE MAMMA. [JULY 11, 1896.

neither thirty years it would then have entirely disappeared. The first great drop in its rate took place in the decade 1860-69, about the time that serious attention began to be given to sanitary reforms and especially to land drainage. It then remained scarcely reduced for about seventeen years; but from 1887 to 1895 it has been steadily on the decline. It is in this period that most of the great sanitary works have been carried out in this country. Can we doubt that it is to them that we owe so substantial a diminution of the disease? And need we despair of carrying it on to its fitting close? Let it be remembered that this improvement has taken place in spite of the increasing aggregation of the population in towns and without any special measures of prevention having been attempted. It is, indeed, only recently that tubercle has been reckoned amongst preventable diseases, and although some slight efforts at the disinfection of sputum and the cleansing of rooms occupied by phthisical patients have been made we certainly cannot ascribe any part of the improvement that has taken place to these causes." What may we not hope for when these measures come to be recognised as a part of the duty of every sanitary authority throughout the kingdom?[1] It is interesting to note that the other tuberculous diseases—such as scrofula, mesenteric disease, and tuberculous meningitis—have not diminished in like proportion.

Dr. Pitman has kindly sent me the following table from his decennial supplement, not yet published, from which it will be seen how slight a change has taken place in the rates of these diseases in the last thirty years. I have marked on the chart the annual rates per 10,000 for the last twenty years, as given in the Registrar-General's report for 1895. The difference between the first and last decennial periods per million is only 69, or rather less than 9 per cent. The rates under the heading of scrofula have, in fact, considerably increased—a fact difficult to account for if the causes of phthisis and scrofula are the same.

Annual Mortality per Million Living from Tuberculous Diseases, other than Phthisis.

Decennia.	Rates per million.
1861-70	
	764

ON THE TREATMENT OF INOPERABLE CASES OF CARCINOMA OF THE MAMMA: SUGGESTIONS FOR A NEW METHOD OF TREATMENT, WITH ILLUSTRATIVE CASES.[1]

By GEORGE THOMAS BEATSON, M.D. Edin.,

SURGEON TO THE GLASGOW CANCER HOSPITAL; ASSISTANT SURGEON, GLASGOW ROYAL INFIRMARY; AND EXAMINER IN SURGERY TO THE UNIVERSITY OF EDINBURGH.

I HAVE no doubt it has fallen to the lot of nearly every medical man to have been consulted from time to time by patients suffering from carcinoma so widely spread or so circumstanced that it has been quite apparent that nothing in the way of operative measures could be recommended. Such cases naturally excite our sympathy, but they also bring home to us the fact that once a case of cancer has passed beyond the reach of the surgeon's knife our curative measures are practically nil, and "that whether the case advance with giant strides or with slow and measured steps the result is equally sure and fatal." Of late, owing to my taking up the work of surgeon to the Glasgow Cancer Hospital, I have seen a considerable number of such cases, and an opportunity has been furnished me of working out a line of treatment which I am not aware has been as yet tried by others and which is founded on a view of the etiology and nature of cancer which is entirely opposed to the local parasitic theory of the disease and which seems to me to offer a more reasonable explanation of it. As these inoperable cases of cancer may be arranged into two groups—first, those which have been operated on, but in which, sooner or later, there has been a recurrence, or, as it should perhaps be better expressed, a re-appearance of the disease; and, secondly, those in which no operation has been

Estrógenos y cáncer de mama

- El tratamiento con un antiestrógeno mejora el pronóstico (Ward BMJ 1973)

Anti-oestrogen Therapy for Breast Cancer: A Trial of Tamoxifen at Two Dose Levels

H. W. C. WARD

British Medical Journal, 1973, 1, 13–14

Summary

Tamoxifen (ICI 46474) was given by mouth to patients with advanced, recurrent, or metastatic breast carcinoma. At a dosage of 10 mg twice daily 60% of patients showed arrest or reversal of tumour growth. At a dosage of 20 mg twice daily 77% showed arrest or reversal of tumour growth. Side effects were usually trivial and their incidence was the same at both dose levels. No patients showed virilization or fluid retention.

Introduction

Tamoxifen is the *trans*-isomer of 1 (p-β-dimethylaminoethoxyphenyl)-1, 2-diphenylbut-1-ene. In several but not all mammalian species it is a potent anti-oestrogen. It is thought to act by blocking oestrogen receptors. Nevertheless, very high dosage in rats has an oestrogenic effect while low dosage is anti-oestrogenic. The first clinical use of an anti-oestrogen for breast carcinoma was described by Kistner and Smith (1960) and further trials were described by Herbst *et al.* (1964). The only published report on the use of tamoxifen is that of Cole *et al.* (1971).

Department of Radiotherapy, Queen Elizabeth Hospital, Birmingham B15 2TH
H. W. C. WARD, M.R.C.P., F.F.R., Consultant Radiotherapist

Patients and Methods

Sixty-eight patients were admitted to the trial. They all had either very advanced primary carcinoma of the breast, recurrence on the chest wall, or soft tissue metastases which could be measured. Other metastases might have been present but these did not affect admission to the trial. In most patients a histological diagnosis was available but in a few patients with very advanced primary disease a biopsy specimen had not been obtained. No patient was admitted to the trial unless there had been a lapse of at least three months from previous treatment with hormones or cytotoxic drugs and from the menopause, either natural or artificial.

Patients were divided into four groups depending on the presence or absence of blood-borne metastases and whether more or less than five years had elapsed from the menopause. For each group a previously prepared randomization table was used to allocate a patient to low or high dose treatment so that the number receiving low or high dosage in each group would be similar. The dosage of tamoxifen (ICI 46474) was either 10 mg or 20 mg twice daily.

During the first six months of treatment patients were seen at least monthly, and thereafter some were allowed a two-month interval between visits. At the beginning of the trial all patients had haematological and biochemical investigations at least every month but when normal results had been obtained regularly for six months the interval was lengthened.

Symptomatic Side Effects.—The incidence of symptoms attributable to the drug is shown in table I. When a patient had more than one symptom each has been noted so that the number of symptoms recorded exceeds the number of patients

Estrógenos y cáncer de mama

- La amenorrea quimio-inducida mejora el pronóstico (EBCTG Lancet 1996)

THE LANCET

Articles

Ovarian ablation in early breast cancer: overview of the randomised trials

*Early Breast Cancer Trialists' Collaborative Group**

Summary

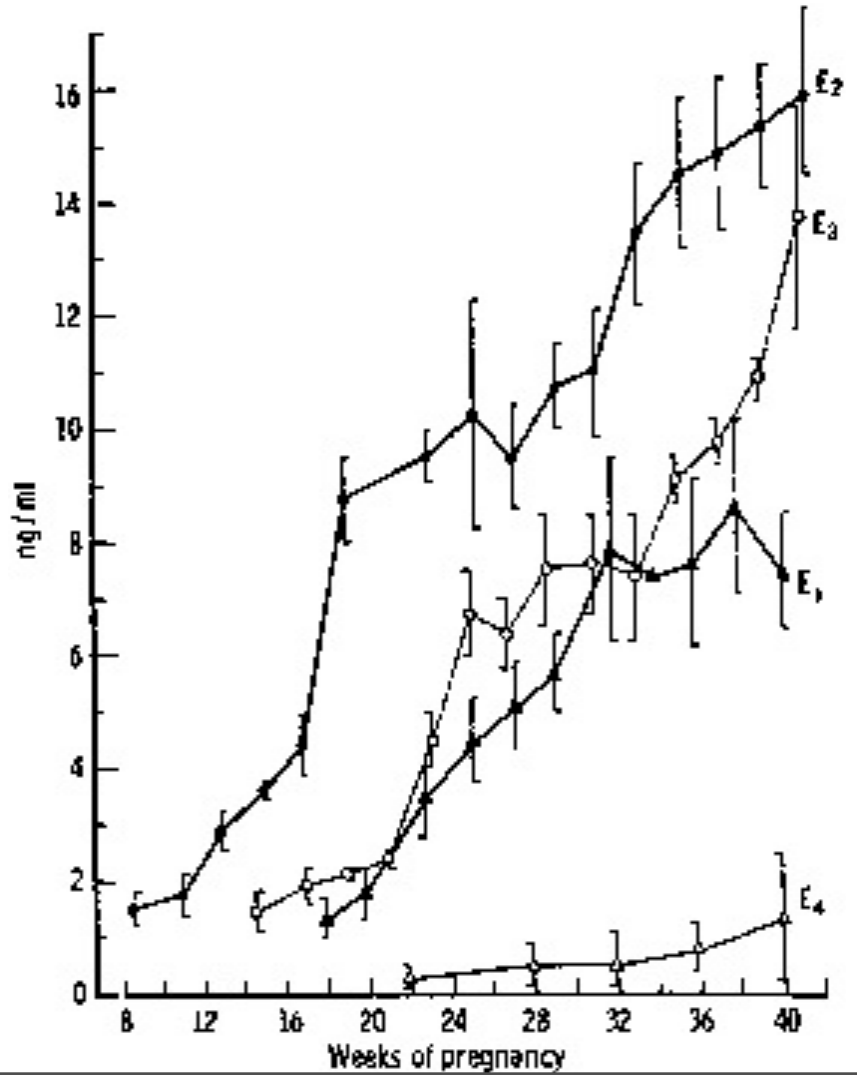
Background Among women with early breast cancer, the effects of ovarian ablation on recurrence and death have been assessed by several randomised trials that now have long follow-up. In this report, the Early Breast Cancer Trialists' Collaborative Group present their third 5-yearly systematic overview (meta-analysis), now with 15 years' follow-up.

improves long-term survival, at least in the absence of chemotherapy. Further randomised evidence is needed on the additional effects of ovarian ablation in the presence of other adjuvant treatments, and to assess the relevance of hormone-receptor measurements.

Lancet 1996; **348:** 1189–96

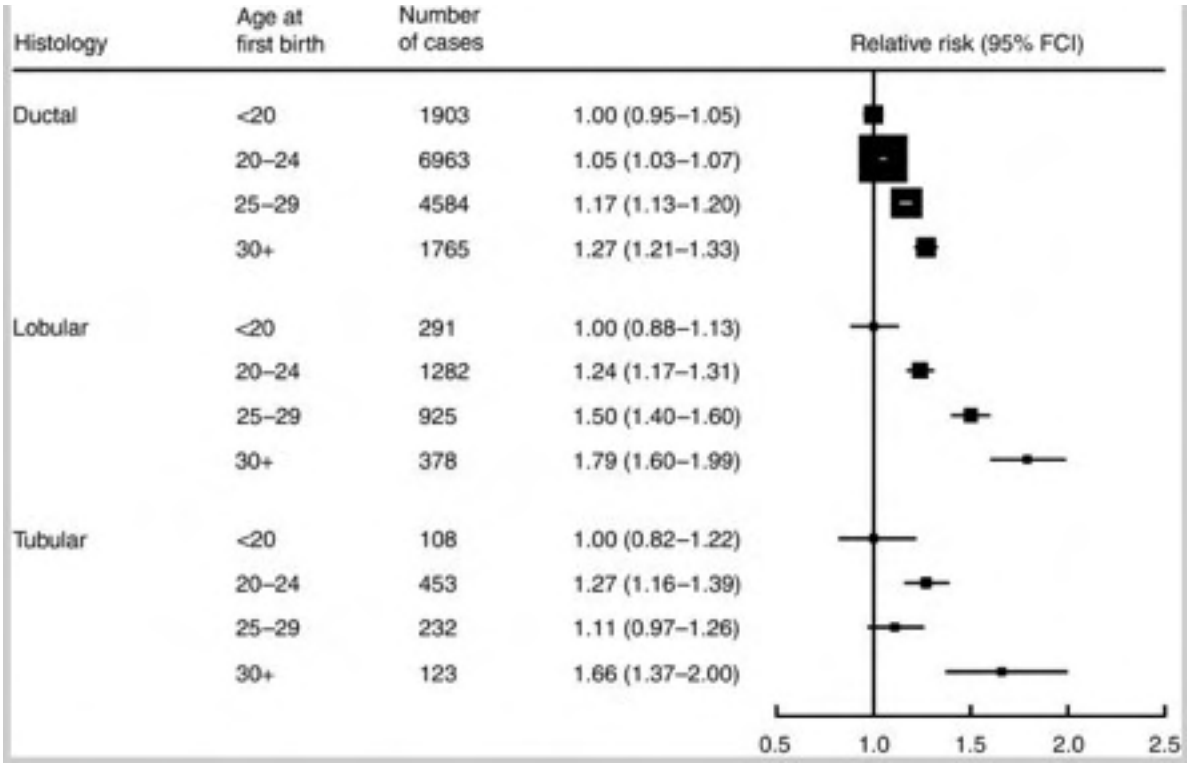
See Commentary page 1184

¿Cómo pueden afectar unos niveles altos y sostenidos al pronóstico de las pacientes diagnosticadas de cáncer de mama?



Efecto del embarazo sobre el riesgo de cáncer de mama en pacientes sanas

Cada embarazo OR 0.9 (IC 95% 0.8-0.91) (Lambe Breast Cancer Res Treat 1996)



Disminuye riesgo (especialmente si embarazo a edades precoces)

Reeves Br J Cancer 2009

Efecto del embarazo sobre el riesgo de cáncer de mama en pacientes sanas

El parto reciente empeora el pronóstico

Table 3. Results of Multivariate Cox Proportional Hazards Models Evaluating Time Since Most Recent Birth and Risk of Death After Breast Cancer Diagnosis Among Women Aged 20–45 Years at Diagnosis

	Multivariate adjusted*		Multivariate adjusted* and adjusted for stage	
Time since most recent birth (mo)	HR	95% CI	HR	95% CI
≤ 12	1.69	1.15–2.49	1.51	1.02–2.23
13–48	1.36	1.04–1.78	1.25	0.95–1.64
> 48	1.09	0.89–1.33	1.06	0.86–1.31
Nulliparous	1.00	Reference	1.00	Reference
	P trend = .003		*P* trend = .03	

HR = hazard ratio; CI = confidence interval.
P trend in parous women.
*Adjusted for surgery, radiation therapy, race (white, black, other), oral contraceptive use (ever, never), education (< 12, 12–15, ≥ 16 years), body mass index (quartiles), and history of benign breast disease.

Whiterman Obstet Gynecol 2004

Pacientes con mutación de *BRCA*

TABLE II – EFFECT OF PARITY ON BREAST CANCER RISK

Parity	BRCA1 (n = 934) OR (95% CI)	p-value	BRCA2 (n = 326) OR (95% CI)	p-value
Nulliparous	1		1	
Ever	0.94 (0.5–1.19)	0.62	1.37 (0.93–2.03)	0.12
Nulliparous	1		1	
1	0.92 (0.68–1.25)	0.60	1.03 (0.61–1.73)	0.91
2	1.03 (0.79–1.33)	0.84	1.48 (0.94–2.32)	0.09
3	0.89 (0.65–1.22)	0.47	1.68 (0.99–2.86)	0.05
4+	0.62 (0.41–0.94)	0.02	1.47 (0.77–2.80)	0.24
Risk per birth	0.94 (0.86–1.02)	0.62	1.15 (1.00–1.33)	0.05
p-value for trend	0.12		0.050	

En portadoras *BRCA1* tener 4 o más hijos disminuye el riesgo

En portadoras *BRCA2* los embarazos aumentan el riesgo

Cullinane Int J Cancer 2005; 117: 988-91

TABLE III – EFFECT OF PARITY ON BREAST CANCER RISK BY AGE OF DIAGNOSIS

Age group (BRCA1 pairs/BRCA2 pairs)	BRCA1 (n = 934) OR (95% CI)	p-value	BRCA2 (n = 326) OR (95% CI)	p-value
< 40 (585/157)	0.91 (0.82–1.02)	0.10	1.19 (0.97–1.45)	0.10
40–44 (189/78)	1.07 (0.89–1.28)	0.47	1.17 (0.88–1.56)	0.29
45–49 (110/56)	0.88 (0.69–1.12)	0.29	1.10 (0.80–1.53)	0.55
50+ (50/35)	0.79 (0.51–1.22)	0.29	0.97 (0.58–1.53)	0.92
< 50 (884/291)	0.94 (0.86–1.03)	0.16	1.17 (1.01–1.36)	0.03

Odds ratios represent the increase in risk of breast cancer associated with each pregnancy.

TABLE IV – ODDS RATIOS FOR BREAST CANCER ACCORDING TO TIME SINCE LAST PREGNANCY

	BRCA1 (n = 934) OR (95% CI)	p	BRCA2 (n = 326) OR (95% CI)	p
Nulliparous	1		1	
1–2 years	0.72 (0.53–0.99)	0.04	1.70 (0.97–2.99)	0.07
3–5 years	0.94 (0.68–1.29)	0.68	1.38 (0.79–2.39)	0.25
6+ years	1.10 (0.84–1.43)	0.50	1.24 (0.79–1.95)	0.36

En portadoras *BRCA2* el embarazo aumenta el riesgo de cáncer de mama premenopáusico

En portadoras *BRCA2* el aumento de riesgo sería especialmente durante los dos años después del parto

Cullinane Int J Cancer 2005; 117: 988-91

DOI: 10.1093/jnci/djq526
Advance Access publication on December 29, 2010

ARTICLE

Associations of Breast Cancer Risk Factors With Tumor Subtypes: A Pooled Analysis From the Breast Cancer Association Consortium Studies

Xiaohong R. Yang, Jenny Chang-Claude, Ellen L. Goode, Fergus J. Couch, Heli Nevanlinna, Roger L. Milne, Mia Gaudet, Marjanka K. Schmidt, Annegien Broeks, Angela Cox, Peter A. Fasching, Rebecca Hein, Amanda B. Spurdle, Fiona Blows, Kristy Driver, Dieter Flesch-Janys, Judith Heinz, Peter Sinn, Aline Vrieling, Tuomas Heikkinen, Kristiina Aittomäki, Päivi Heikkilä, Carl Blomqvist, Jolanta Lissowska, Beata Peplonska, Stephen Chanock, Jonine Figueroa, Louise Brinton, Per Hall, Kamila Czene, Keith Humphreys, Hatef Darabi, Jianjun Liu, Laura J. Van 't Veer, Flora E. van Leeuwen, Irene L. Andrulis, Gord Glendon, Julia A. Knight, Anna Marie Mulligan, Frances P. O'Malley, Nayana Weerasooriya, Esther M. John, Matthias W. Beckmann, Arndt Hartmann, Sebastian B. Wehrbrecht, David L. Wachter, Sebastian M. Jud, Christian R. Loehberg, Laura Baglietto, Dallas R. English, Graham G. Giles, Catriona A. McLean, Gianluca Severi, Diether Lambrechts, Thijs Vandorpe, Caroline Weltens, Robert Paridaens, Ann Smeets, Patrick Neven, Hans Wildiers, Xianshu Wang, Janet E. Olson, Victoria Cafourek, Zachary Fredericksen, Matthew Kosel, Celine Vachon, Helen E. Cramp, Daniel Connley, Simon S. Cross, Sabapathy P. Balasubramanian, Malcolm W. R. Reed, Thilo Dörk, Michael Bremer, Andreas Meyer, Johann H. Karstens, Aysun Ay, Tjoung-Won Park-Simon, Peter Hillemanns, Jose Ignacio Arias Pérez, Primitiva Menéndez Rodríguez, Pilar Zamora, Javier Benítez, Yon-Dschun Ko, Hans-Peter Fischer, Ute Hamann, Beate Pesch, Thomas Brüning, Christina Justenhoven, Hiltrud Brauch, Diana M. Eccles, William J. Tapper, Sue M. Gerty, Elinor J. Sawyer, Ian P. Tomlinson, Angela Jones, Michael Kerin, Nicola Miller, Niall McInerney, Hoda Anton-Culver, Argyrios Ziogas, Chen-Yang Shen, Chia-Ni Hsiung, Pei-Ei Wu, Show-Lin Yang, Jyh-Cheng Yu, Shou-Tung Chen, Giu-Cheng Hsu, Christopher A. Haiman, Brian E. Henderson, Loic Le Marchand, Laurence N. Kolonel, Annika Lindblom, Sara Margolin, Anna Jakubowska, Jan Lubiński, Tomasz Huzarski, Tomasz Byrski, Bohdan Górski, Jacek Gronwald, Maartje J. Hooning, Antoinette Hollestelle, Ans M. W. van den Ouweland, Agnes Jager, Mieke Kriege, Madeleine M. A. Tilanus-Linthorst, Margriet Collée, Shan Wang-Gohrke, Katri Pylkäs, Arja Jukkola-Vuorinen, Kari Mononen, Mervi Grip, Pasi Hirvikoski, Robert Winqvist, Arto Mannermaa, Veli-Matti Kosma, Jaana Kauppinen, Vesa Kataja, Päivi Auvinen, Ylermi Soini, Reijo Sironen, Stig E. Bojesen, David Dynnes Ørsted, Dilja Kaur-Knudsen, Henrik Flyger, Børge G. Nordestgaard, Helene Holland, Georgia Chenevix-Trench, Siranoush Manoukian, Monica Barile, Paolo Radice, Susan E. Hankinson, David J. Hunter, Rulla Tamimi, Suleeporn Sangrajrang, Paul Brennan, James McKay, Fabrice Odefrey, Valerie Gaborieau, Peter Devilee, P.E.A. Huijts, RAEM. Tollenaar, C. Seynaeve, Gillian S. Dite, Carmel Apicella, John L. Hopper, Fleur Hammet, Helen Tsimiklis, Letitia D. Smith, Melissa C. Southey, Manjeet K. Humphreys, Douglas Easton, Paul Pharoah, Mark E. Sherman, Montserrat Garcia-Closas

Manuscript received May 13, 2010; revised November 22, 2010; accepted November 23, 2010.

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Background Previous studies have suggested that breast cancer risk factors are associated with estrogen receptor (ER) and progesterone receptor (PR) expression status of the tumors.

Methods We pooled tumor marker and epidemiological risk factor data from 35 568 invasive breast cancer case patients from 34 studies participating in the Breast Cancer Association Consortium. Logistic regression models were used in case–case analyses to estimate associations between epidemiological risk factors and tumor subtypes, and case–control analyses to estimate associations between epidemiological risk factors and the risk of developing specific tumor subtypes in 12 population-based studies. All statistical tests were two-sided.

Results In case–case analyses, of the epidemiological risk factors examined, early age at menarche (≤12 years) was less frequent in case patients with PR− than PR+ tumors ($P = .001$). Nulliparity ($P = 3 \times 10^{-6}$) and increasing age at first birth ($P = 2 \times 10^{-4}$) were less frequent in ER− than in ER+ tumors. Obesity (body mass index [BMI] ≥ 30 kg/m^2) in younger women (≤50 years) was more frequent in ER−/PR− than in ER+/PR+ tumors ($P = 1 \times 10^{-7}$), whereas obesity in older women (>50 years) was less frequent in PR− than in PR+ tumors ($P = 6 \times 10^{-4}$). The triple-negative (ER−/PR−/HER2−) or core basal phenotype (CBP; triple-negative and cytokeratins [CK]5/6+ and/or epidermal growth factor receptor [EGFR]+) accounted for much of the heterogeneity in parity-related variables and BMI in younger women. Case–control analyses showed that nulliparity, increasing age at first birth, and obesity in younger women showed the expected associations with the risk of ER+ or PR+ tumors but not triple-negative (nulliparity vs parity, odds ratio [OR] = 0.94, 95% confidence interval [CI] = 0.75 to 1.19, $P = .61$; 5-year increase in age at first full-term birth, OR = 0.95, 95% CI = 0.86 to 1.05, $P = .34$; obesity in younger women, OR = 1.36, 95% CI = 0.95 to 1.94, $P = .09$) or CBP tumors.

Conclusions This study shows that reproductive factors and BMI are most clearly associated with hormone receptor–positive tumors and suggest that triple-negative or CBP tumors may have distinct etiology.

J Natl Cancer Inst 2011;103:250–263

n=35.568

Yang J Natl Cancer Inst 2011

Tumor subtypes†	No. of studies	Parity			
		Parous	Nulliparous	Nulliparous vs parous	
		No. (%)	No. (%)	OR (95% CI)	*P*‡
ER+	30	18640 (85)	3378 (15)	1.00 (referent)	
ER−	30	5826 (86)	917 (14)	0.82 (0.76 to 0.89)	3×10^{-6}
PR+	30	14202 (85)	2610 (16)	1.00 (referent)	
PR−	30	7571 (86)	1287 (15)	0.91 (0.84 to 0.98)	.01
ER+/PR+	30	13248 (84)	2441 (16)	1.00 (referent)	
ER+/PR−	30	2988 (84)	572 (16)	1.06 (0.96 to 1.18)	.25
ER−/PR+	30	904 (85)	161 (15)	0.99 (0.83 to 1.18)	.88
ER−/PR−	30	4541 (87)	707 (14)	0.80 (0.73 to 0.88)	5×10^{-6}
ER+/HER2− or PR+/HER2−	15	6661 (83)	1331 (17)	1.00 (referent)	
ER+/HER2+ or PR+/HER2+	15	1001 (82)	216 (18)	1.00 (0.85 to 1.18)	.98
ER−/PR−/HER2+	15	622 (82)	135 (18)	0.98 (0.81 to 1.20)	.87
ER−/PR−/HER2−	15	1374 (87)	204 (13)	0.69 (0.59 to 0.81)	7×10^{-6}

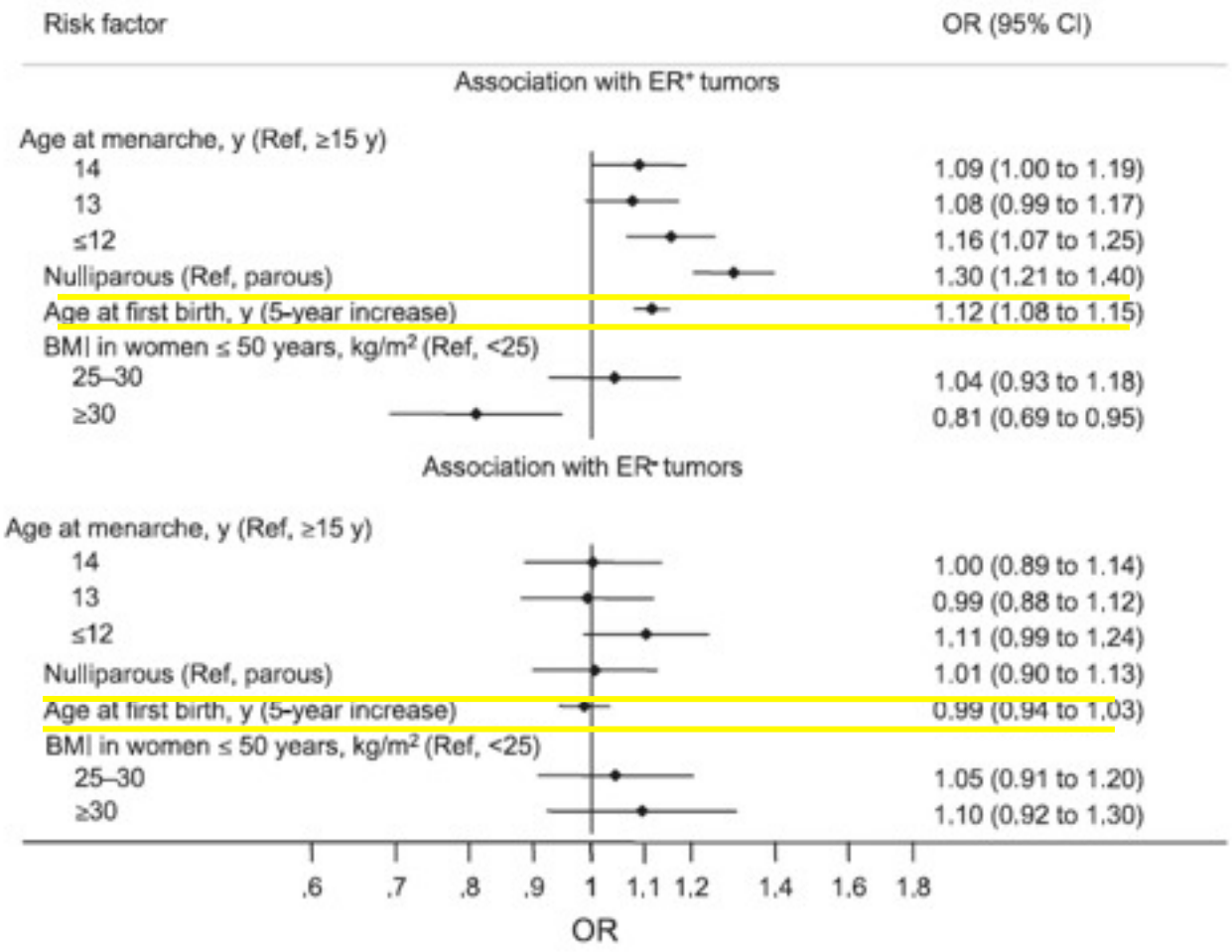
Nuliparidad menos frecuente en HR-

Yang J Natl Cancer Inst 2011

Tumor subtypes†	No. of studies	Age at first full-term birth, y						
		<20	20–24	25–29	30–34	≥35	5-year increase	
		No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	OR (95% CI)	P‡
ER+	25	1711 (11)	6060 (40)	4853 (32)	1925 (13)	681 (5)	1.00 (referent)	
ER−	25	692 (14)	2050 (40)	1563 (31)	589 (12)	185 (4)	0.90 (0.87 to 0.93)	2×10^{-9}
PR+	25	1322 (11)	4576 (39)	3736 (32)	1505 (13)	512 (4)	1.00 (referent)	
PR−	25	793 (12)	2602 (40)	2019 (31)	787 (12)	288 (4)	0.97 (0.94 to 1.01)	.11
ER+/PR+	25	1204 (11)	4250 (39)	3454 (32)	1412 (13)	484 (5)	1.00 (referent)	
ER+/PR−	25	256 (10)	1006 (40)	830 (33)	313 (12)	134 (5)	1.05 (1.01 to 1.10)	.02
ER−/PR+	25	110 (13)	317 (39)	275 (34)	90 (11)	27 (3)	0.91 (0.84 to 0.98)	.02
ER−/PR−	25	530 (14)	1586 (41)	1179 (30)	466 (12)	153 (4)	0.91 (0.88 to 0.95)	6×10^{-6}
ER+/HER2− or PR+/HER2−	13	659 (11)	2490 (42)	1841 (31)	735 (12)	240 (4)	1.00 (referent)	
ER+/HER2+ or PR+/HER2+	13	101 (11)	379 (42)	269 (30)	113 (12)	46 (5)	0.99 (0.92 to 1.07)	.7
ER−/PR−/HER2+	13	56 (10)	242 (43)	180 (32)	64 (11)	25 (4)	1.01 (0.92 to 1.10)	.91
ER−/PR−/HER2−	13	178 (14)	552 (44)	333 (26)	153 (12)	44 (4)	0.89 (0.83 to 0.95)	.0007

Edad joven en el momento de tener el primer hijo menos frecuente en HR-

Yang J Natl Cancer Inst 2011



Los embarazos protegen de los ca con HR+
Los embarazos no protegen de los ca con HR-

Yang J Natl Cancer Inst 2011


El embarazo antes del cáncer es protector
El embarazo "selecciona" el inmunofenotipo de cáncer
¿Actuará igual en pacientes que han sido tratadas de cáncer?

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Safety of pregnancy following breast cancer diagnosis: A meta-analysis of 14 studies

Hatem A. Azim Jr. [a,b], *Luigi Santoro* [c], *Nicholas Pavlidis* [d], *Shari Gelber* [e], *Niels Kroman* [f], *Hamdy Azim* [g], *Fedro A. Peccatori* [h,*]

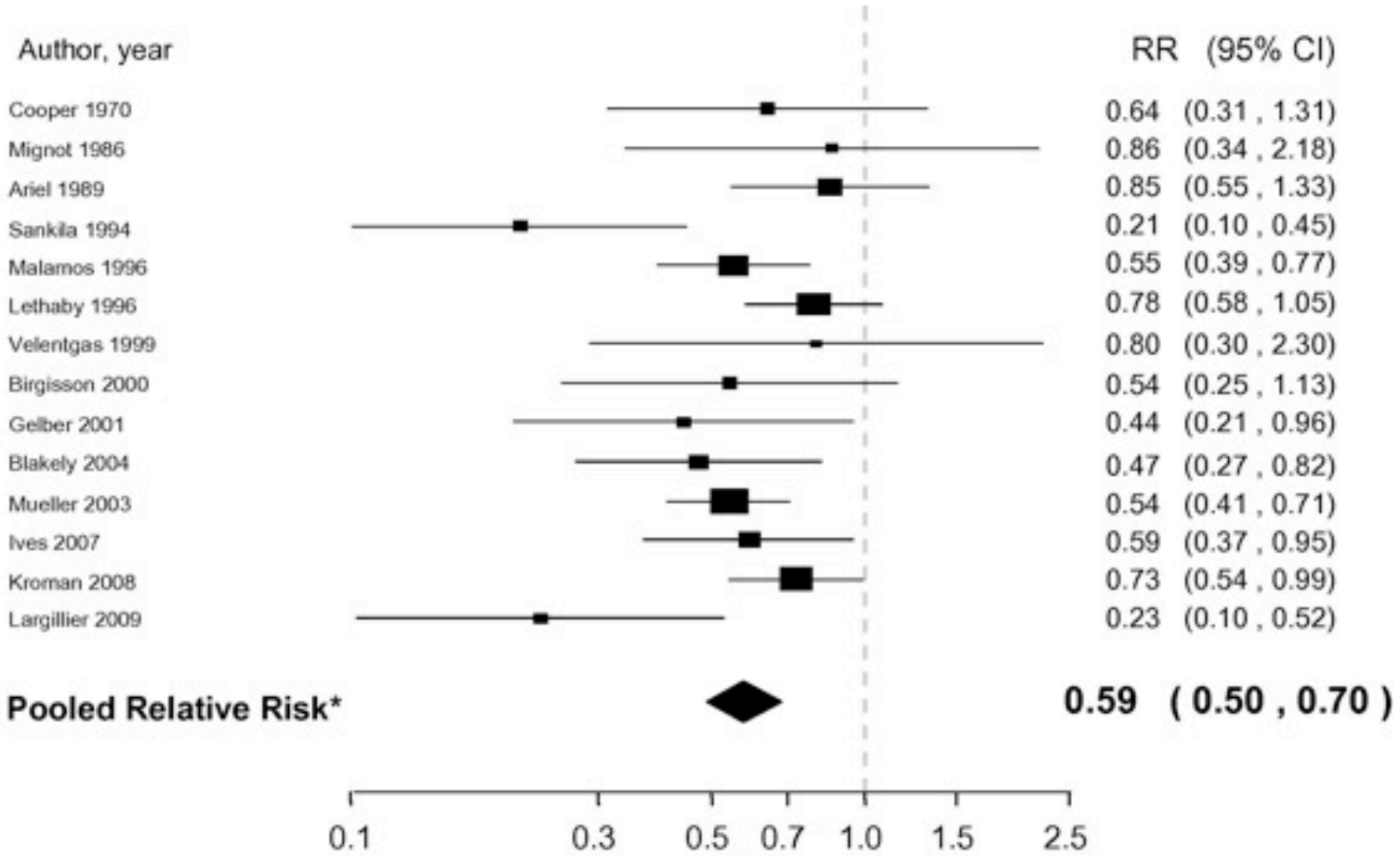
Study	Year of publication	Country	No. Pregnant	No. Non-pregnant	Outcome of pregnancy	Age at diagnosis	Study design	Matching criteria for choosing controls
Cooper[10]	1970	USA	28	56	Full-term (delivery)	≤40	Matched CC	Stage (I/III); N(+/−); age
Mignot[11]	1986	France	68	136	All[c]	≤45	Matched CC	Age, year of tumour treatment, TNM status, histology
Ariel[12]	1989	USA	46	900	Unspecified	22–45	Population based	NA
Sankila[9]	1994	Finland	91	471	Full-term (delivery)	<40	Matched CC	Stage (I/III); age; year of BC diagnosis
Malamos[13]	1996	Greece	21	222	All[c]	<35	Hospital based	NA
Lethaby[14]	1996	New Zealand	14	334	Unspecified	<45	Population based	NA
Velentgas[15]	1999	USA	53	265	All[c]	<45	Matched CC	Stage of disease
Birgisson[16]	2000	Iceland	14	33	Full-term (delivery)	<50	Matched CC	Tumour size, nodal status, year of BC diagnosis
Gelber[8]	2001	International	94	188	All[c]	16–42[a]; 22–53[b]	Matched CC	Nodal status, tumour size, age, year of BC diagnosis
Mueller[17]	2003	USA	328	2002	Full-term (Live birth)	<45	Matched CC	Age, race/ethnicity, year of BC diagnosis, stage
Blakely[18]	2004	USA	47	323	All[c]	<35	Hospital based	NA
Ives[19]	2007	Australia	123	2416	All[c]	<45	Population based	NA
Kroman[20]	2008	Denmark	199	10,037	Full-term	<45	Population based	NA
Largillier[21]	2009	France	118	762	Unspecified	<35	Hospital based	NA
Total			1244	18,145				

NR: not reported; CC: case–control; BC: breast cancer; NA: not applicable.

[a] CASES

[b] CONTROLS.

[c] Full term (live birth) and at least one amongst the following: preterm (spontaneous or elective) abortion, miscarriage, ectopic, stillbirth.



Q test for Heterogeneity=22.8 (p=0.04), df=13 I^2=43.1

*Mixed effect model: estimates adjusted for the heterogeneity between studies

Azim Eur J Cancer 2011

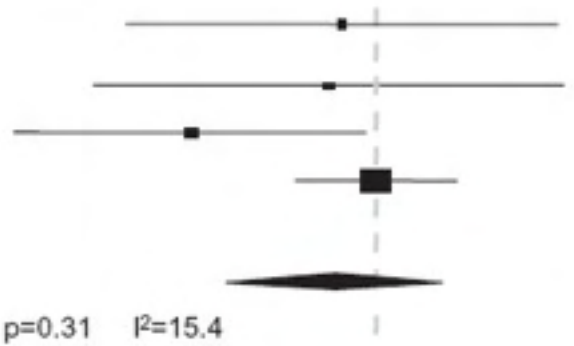
¿Sólo se embarazan las pacientes que tenían mejor pronóstico?

Healthy mother effect

(Sankila Am J Obstet Gynecol 1994)

Sólo teniendo en cuenta las pacientes que estaban libres de enfermedad en el momento del embarazo

Recurrence-free	No. of deaths/ No. of participants	
	Pregnant	Non-pregnant
Mignot, 1986	10/68	21/136
Velentagas, 2000	5/53	34/265
Gelber, 2001	11/94	35/188
Kroman, 2008	46/199	3397/10037
Subtotal PRR (95% CI)	**0.85 (0.53-1.35)**	
Q test for Heterogeneity p=0.31	I^2=15.4	



Azim Eur J Cancer 2011

¿Sólo se embarazan las pacientes que tenían mejor pronóstico?

Healthy mother effect

(Sankila Am J Obstet Gynecol 1994)

Ningún estudio valora los receptores hormonales

Pregnancy after breast cancer in young patients does not worsen the outcome of breast cancer

Vall d'Hebron Hospital

Córdoba O, Sabadell MD, Cortadellas T, Rubio IT, Xercavins J

Unitat de Patologia Mamària, Servei de Ginecologia. Hospital Universitari Vall d'Hebron . Barcelona. Spain

Background

Pregnancy after breast cancer may worsen the outcome of breast cancer due to associated hormonal changes, especially among young patients. However, prior studies have failed to detect this effect, which may be explained by the selection of patients of patients of older age and those that give birth to term. The aim of this study is to asses the effects of pregnancy on the outcome of breast cancer in young patients.

Methods

Subjects: 123 Consecutive patients (1995 to 2005) diagnosed of breast cancer or ductal carcinoma in situ. All the patients were aged ≤ 35 years old at diagnosis.

Recommendation: Pregnancy was discouraged for the first 2 years following diagnosis.

Statistics: Comparison of patients: and A) Without subsequent pregnancy and B) With subsequent pregnancy for prognostic factors, treatment with adjuvant therapy and outcome.

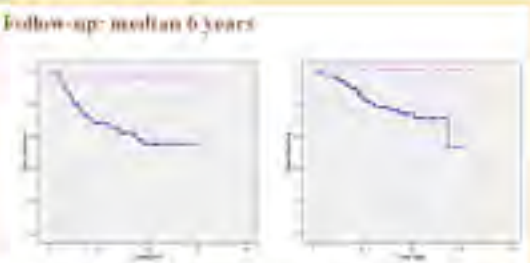
Results

Prognostic factors and treatment

Prognostic factors	No subsequent pregnancy	Pregnancy	p
n	101	22	
Median age at diagnosis	31,52	33,14	
Histological type			
IDC	84 (83,2%)	17 (81%)	
ILC	3 (3%)	3 (14,3%)	
Clinical Stage			
I	24 (23,8%)	6 (30,1%)	
IIA	55 (52,5%)	9 (42,9%)	
IIB	17 (16,8%)	4	
IIIA	4 (3,9%)	2 (9,5%)	
IIIB	1 (1,0%)	0	
IV	1 (1%)	0	
Positive axillary lymph nodes	48/97 (51,7%)	8/18 (44,5%)	
Estrogen Receptor Positive	80/93 (85,2%)	16/20 (80%)	
Use of adjuvant chemotherapy	82/93 (88,2%)	16/20 (80%)	
Use of Hormonal Treatment	65/93 (68,8%)	7/20 (35%)	

Prognostic factor are similar in both groups.

Use of hormonal treatment is more frequent in patients without subsequent pregnancy.



Patients with subsequent pregnancy at 5 years had better:
- Disease-free survival (95% vs.62% p < 0.01)
- Overall survival (100% vs. 82% p < 0.01)

Conclusions

- A significant proportion of patients diagnosed of breast cancer at young age get pregnant.
- In many cases pregnancy was not desired and was interrumped.
- **Continuous contraceptive counselling should be given to patients with breast cancer at reproductive age.**
- Pregnancy don't seems worsen the cancer outcomes.
- **Patient should be counselling not to discontinue her pregnancy**

Institut Català de la Salut

SABCS 2009

Methods

Subjects: 123 Consecutive patients (1995 to 2005) diagnosed of breast cancer or ductal carcinoma in situ. All the patients were aged ≤ 35 years old at diagnosis.

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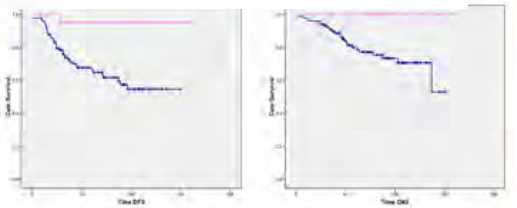
Statistics: Comparison of patients: and A) Without subsequent pregnancy and B) With subsequent pregnancy for prognostic factors, treatment with adjuvant therapy and outcome.

Results

Prognostic factors	No subsequent pregnancy	Pregnancy	p
n	101	20	
Median age at diagnosis	31,52	31,14	None statistical differences
Histological type			
DCI	84 (83,2%)	17 (81%)	
CDIS	4 (4%)	3 (14,3%)	
Clinical Stage			
I	24 (23,8%)	8 (38,1%)	
IIA	33 (32,7%%)	9 (42,9%)	
IIB	17 (16,8%)	0	
IIIA	9 (8,9%)	2 (9,5%)	
IIIB	6 (5,9%)	0	
IV	1 (1%)	0	
Positive axillary lymph nodes	45/87 (51,7%)	8/18 (44,4%)	
Estrogen Receptors Positive	60/92 (65,2%)	8/18 (44,4%)	
Use of adjuvant chemotherapy	83/93 (89,2%)	16/20 (80%)	
Use of Hormonal Treatment	65/95 (68,4%)	7/20 (35%)	p<0.01

Prognostic factor are similar in both groups.

Use of hormonal treatment is more frequent in patients without subsequent pregnancy.



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Conclusions

- A significant proportion of patients diagnosed of breast cancer at young age get pregnant.
- In many cases pregnancy was not desired and was interrumped.
- **Continuous contraceptive counselling should be given to patients with breast cancer at reproductive age.**
- Pregnancy don't seems worsen the cancer outcomes.
- **Patient should be counselling not to discontinue her pregnancy**

Prognostic factors and treatment

Prognostic factors	No subsequent pregnancy	Pregnancy	p
n	101	20	
Median age at diagnosis	31,52	31,14	None statistical differences
Histological type			
DCI	84 (83,2%)	17 (81%)	
CDIS	4 (4%)	3 (14,3%)	
Clinical Stage			
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IIA	33 (32,7%%)	9 (42,9%)	
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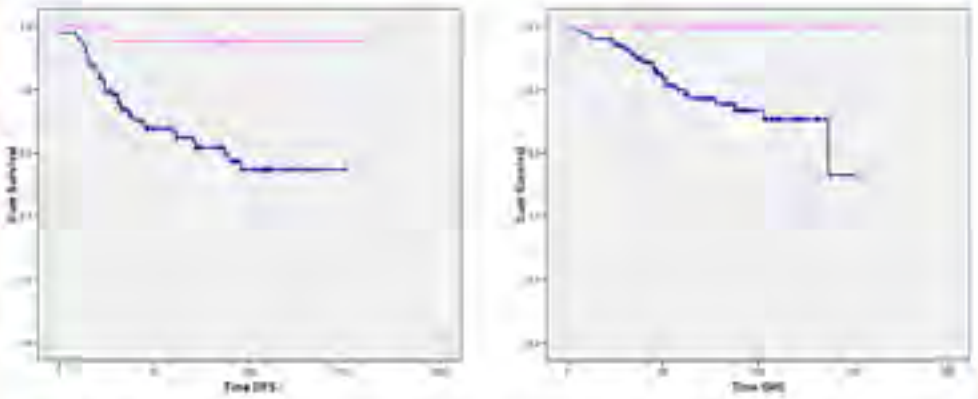
Use of Hormonal Treatment	65/95 (68,4%)	7/20 (35%)	p<0.01

Prognostic factor are similar in both groups.

Use of hormonal treatment is more frequent in patients without subsequent pregnancy.

Follow-up: median 6 years



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SABCS 2009


El embarazo después del tratamiento de càncer de mama no empeora el pronóstico
¿Tanto en HR- como en HR-?

Pregnancy after breast cancer in young patients does not worsen the outcome of breast cancer

Vall d'Hebron Hospital

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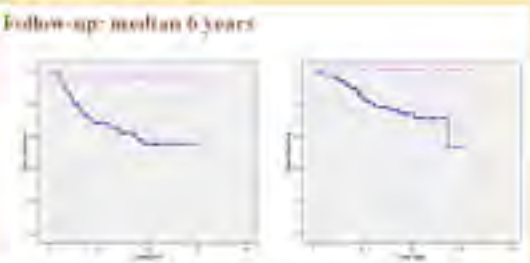

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SABCS 2009

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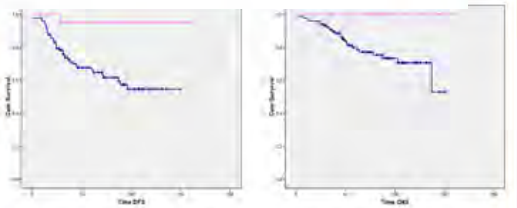

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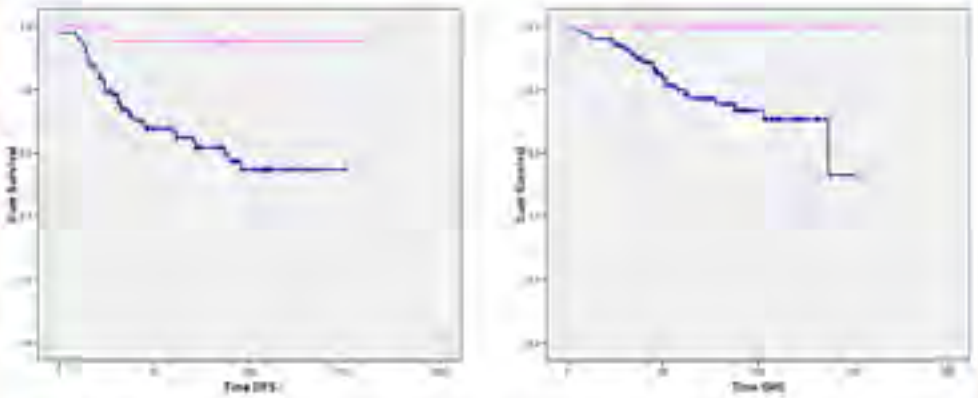

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SABCS 2009

A multicentric case-control study to determine the effect of pregnancy on breast cancer outcome in women with history of breast cancer

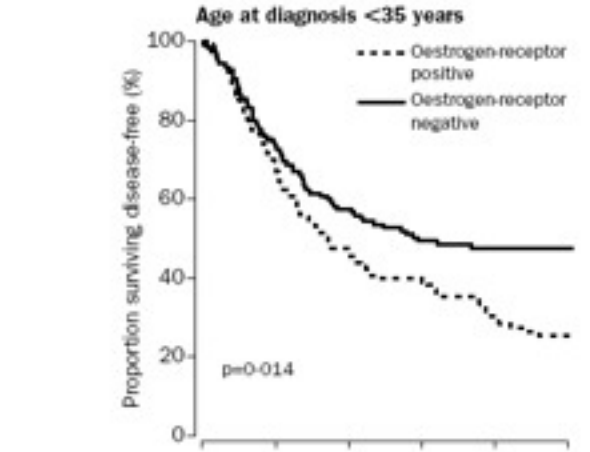
Study Principal Investigators (PI):

Hatem A. Azim Jr (Jules Bordet Institute, Brussels, Belgium)

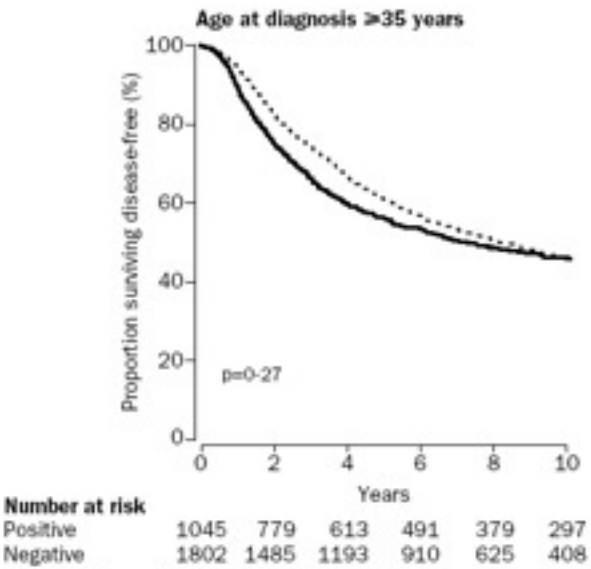
Fedro Peccatori (European Institute of Oncology, Milan, Italy)

Estudi multicéntrico en curso

Les pacients joves amb RH tenen pitjor pronòstic (Aebi Lancet 2000)

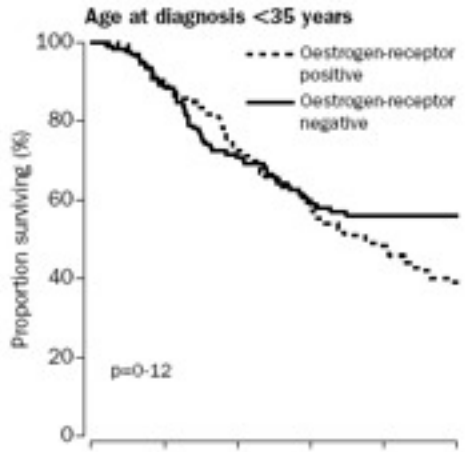


Number at risk						
Positive	124	90	71	59	47	39
Negative	127	85	58	42	28	21



Number at risk						
Positive	1045	779	613	491	379	297
Negative	1802	1485	1193	910	625	408

Figure 1: **Disease-free survival of premenopausal women with breast cancer**



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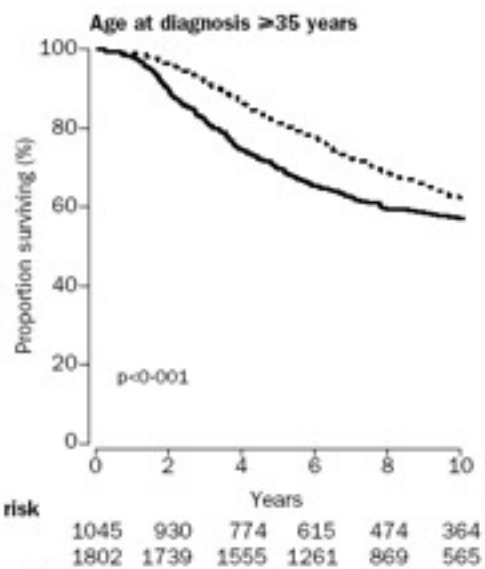

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Positive	1045	930	774	615	474	364
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Figure 2: **Overall survival of premenopausal women with breast cancer**

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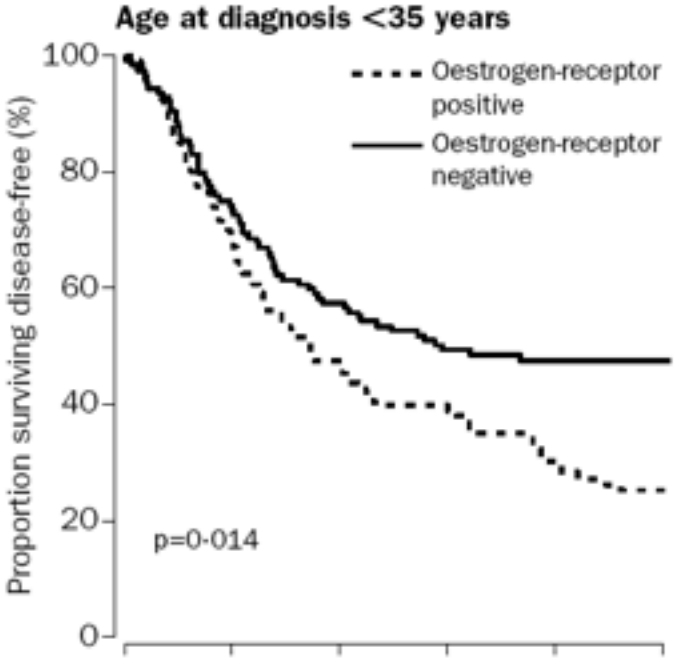

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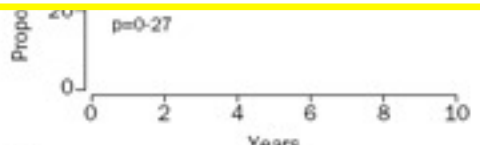

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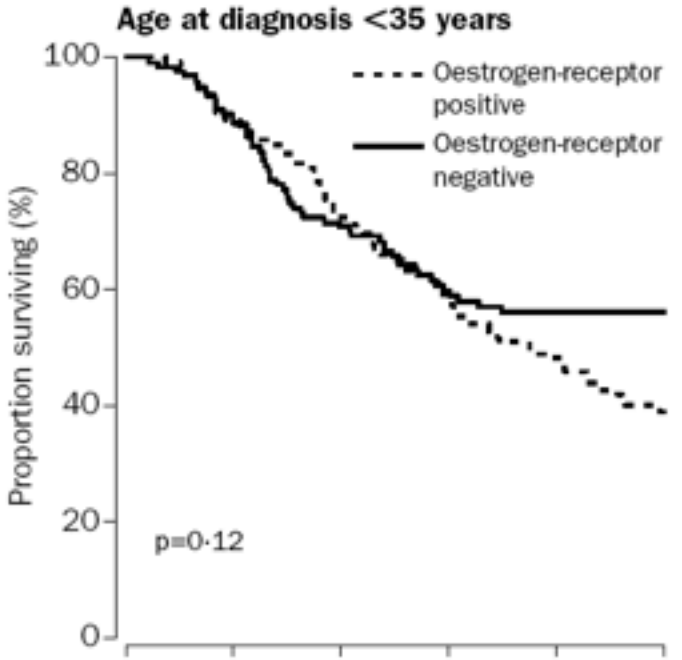

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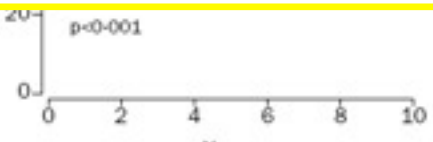

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El embarazo posterior no empeora el pronóstico del cáncer
¿El cáncer previo empeora el pronóstico de la gestación?
©K. Haring 87

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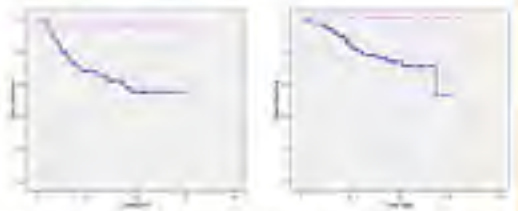

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Institut Català de la Salut

40% de interrupciones voluntarias del embarazo

SABCS 2009

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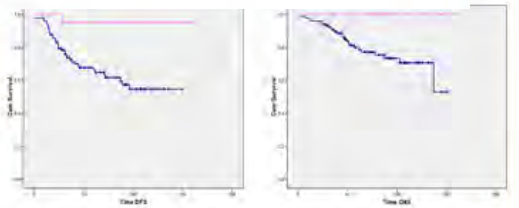

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40% de interrupciones voluntarias del embarazo SABCS 2009

Pregnancy Outcomes

Outcome	Total (%)	Alive (%)	Dead (%)
Pregnancy	47 (13)	37 (79)	10 (21)
Full term	32 (68)		
Spontaneous or elective abortion	10 (21)		
Miscarriage	4 (9)		
Preterm	1 (2)		
No pregnancy	323 (87)	176 (54)	147 (46)

Blakely Cancer 2004

Acta Oncologica, 2008; 47: 545–549

informa
healthcare

ORIGINAL ARTICLE

Pregnancy after treatment of breast cancer – A population-based study on behalf of Danish Breast Cancer Cooperative Group

NIELS KROMAN[1,2], MAJ-BRITT JENSEN[2], JAN WOHLFAHRT[3] & BENT EJLERTSEN[4]

[1]*Department of Breast and Endocrine Surgery, Rigshospitalet, Copenhagen, Denmark,* [2]*Danish Breast Cancer Cooperative Group, Rigshospitalet, Copenhagen, Denmark,* [3]*Department of Epidemiology Research, Danish Epidemiology Science Centre, Statens Serum Institut, Copenhagen, Denmark and* [4]*Department of Oncology, Rigshospitalet, Copenhagen, Denmark*

	Pregnancy history after diagnosis of breast cancer n (%)			
	Full-term pregnancy*	Induced abortion†	Spontaneous abortion	No pregnancy
Total No	199	157	15	9 865

42% de interrupciones voluntarias del embarazo

Menstruation and Pregnancy Data (Includes Data Obtained before and after Treatment)

Characteristic	Menstruation status after chemotherapy		
	Unknown	Menstruating	Amenorrheic
All patients	137	202	44
Pregnancy data			
Unknown		12	3
At least one pregnancy		168	36
At least one live birth		163	35
No pregnancy		22	5

Blakely Cancer 2004

Effect of Tamoxifen on the Endometrium and the Menstrual Cycle of Premenopausal Breast Cancer Patients

Ciska Buijs, MD, PhD, Pax H. B. Willemse, MD, PhD,* E. G. E. de Vries, MD, PhD,* Klase A. Ten Hoor,* H. M. Boezen, PhD,† Harry Hollema, MD, PhD,‡ and Marian J. E. Mourits, MD, PhD§*

In conclusion, the clinical definition of menopause by amenorrhea of more than 1 year may lead to an erroneous interpretation of menopausal status in young, tamoxifen-using breast cancer patients. In premenopausal patients, tamoxifen has a predominantly antiestrogenic effect, even in case of supraphysiological serum E_2 levels. Tamoxifen leads to an endocrinologic imbalance, as no correlation between E_2 levels and endometrial response was found.

Buijs Int J Gynecol Cancer 2009

¡CUIDADO!

Amenorrea prolongada no es sinónimo de cesación de la actividad ovárica

Insistir en la necesidad de métodos anticonceptivos

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GESTACIÓN TRAS CÁNCER DE MAMA EN LA PACIENTE JOVEN: RESULTADOS PERINATALES

M Rojas Torrijos, B Lorente, T Cortadellas , IT Rubio, O Córdoba

Unitat de Patologia Mamària, servei de Ginecologia. Centre de Càncer de Mama Vall d'Hebron. Hospital Vall d'Hebron. Barcelona. Spain

Objetivos

Conocer los resultados perinatales en gestaciones posteriores al diagnóstico y tratamiento del cáncer de mama.

Material y Métodos

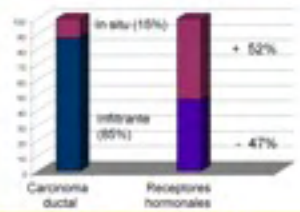
- 121 pacientes diagnosticadas de cáncer de mama antes de los 36 años.
- Periodo 1995-2005.
- Estudio prospectivo de los resultados perinatales de las gestaciones observadas en estas pacientes.

Resultados

Número de gestaciones:

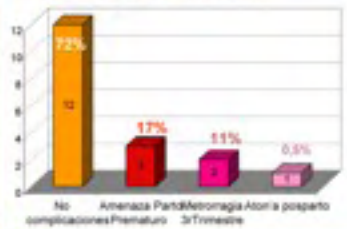
- Edad media al embarazo: **36** años
- Tiempo medio desde diagnóstico al embarazo: **44** meses (rango 10 – 85)
- 100% gestaciones espontáneas

Características cáncer de mama:



- Edad media al diagnóstico: **31** años
- pN+: 44% pacientes
- Estadio clínico: 0 9.5%, I 38%, II 43%, III 9.5%
- Tratamiento adyuvante
  - 80% quimioterapia
  - 35% hormonoterapia
- Tratamiento quirúrgico:
  - 40% Conservador
  - En 3 casos BSGC

Complicaciones obstétricas:



Parto:

- Edad gestacional media: **40** semanas (rango 35-42)
- Parto mediante cesárea en 33% de gestaciones.
- Peso medio 3480g. Apgar medio: 9/10
- Ingreso en clínica infantil: 2 RN

Conclusiones

- Una importante proporción de pacientes jóvenes diagnosticadas de cáncer de mama queda embarazada.
- Las gestantes con antecedente de cáncer de mama presentan una baja incidencia de complicaciones y buenos resultados perinatales.

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GESTACIÓN TRAS CÁNCER DE MAMA EN LA PACIENTE JOVEN: RESULTADOS PERINATALES

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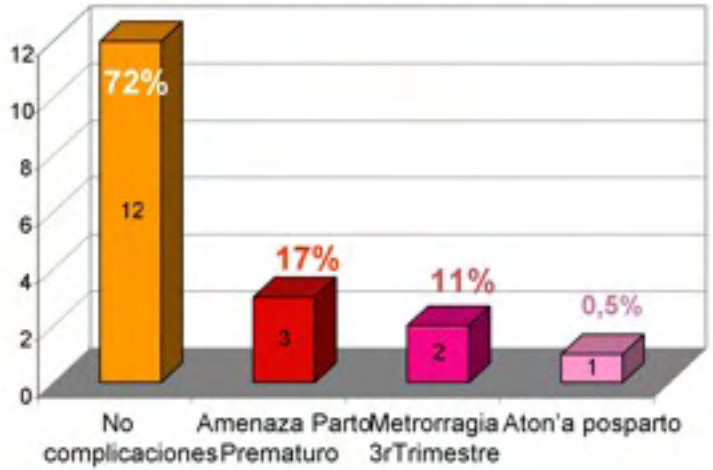
Unitat de Patologia Mamària, servei de Ginecologia. Centre de Càncer de Mama Vall d'Hebron. Hospital Vall d'Hebron. Barcelona. Spain

Complicaciones obstétricas:



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Birth Outcome in Women with Previously Treated Breast Cancer—A Population-Based Cohort Study from Sweden

Kristina Dalberg*, Johan Eriksson, Lars Holmberg

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Characteristic	Subcategory	Women Exposed to Breast Cancer (n = 331), Number (Percent)	Women Not Exposed to Breast Cancer (n = 2,870 518), Number (Percent)	Crude OR (95% CI)
Pregnancy bleeding	No	327 (99%)	2,845,484 (99%)	1
	Yes	4 (1%)	2,503 (1%)	1.39 (0.52, 3.73)
Delivery complication	No	160 (48%)	1,861,216 (65%)	1
	One or more	171 (52%)	1,009,302 (35%)	1.97 (1.59, 2.45)
Instrumental delivery	No	298 (90%)	2,690,147 (94%)	1
	Yes	33 (10%)	180,341 (6%)	1.65 (1.15, 2.37)
Cesarean section	No	261 (79%)	2,560,069 (89%)	1
	Yes	70 (21%)	310,419 (11%)	2.21 (1.70, 2.88)

Mayor riesgo de complicaciones del parto, instrumentación y cesárea

Dalberg Plos Med 2006

Characteristic	Subcategory	Mother Exposed to Breast Cancer (n = 331), Number (Percent)	Mother Not Exposed to Breast Cancer (n = 2,870,518), Number (Percent)	Crude OR (95% CI)
Gestational age	<32 wk	10 (3%)	20,265 (1%)	4.52 (2.41, 8.49)
	32–36	26 (8%)	128,560 (4%)	1.85 (1.24, 2.77)
	37–42	292 (88%)	2,674,685 (93%)	1
	42+	3 (1%)	38,811 (2%)	0.71 (0.23, 2.21)
Mortality	Live born, alive ≥ 7 d	327 (99%)	2,851,969 (99%)	1
	Stillbirth	2	10,307	1.69 (0.42, 6.80)
	Live born, alive < 7 d	2	8,242	2.12 (0.53, 8.50)
Birth weight	Missing	2 (1%)	8,701 (<1%)	
	<1,500 g	8 (2%)	17,484 (1%)	4.12 (2.04, 8.31)
	1,500–2,499	12 (4%)	85,980 (3%)	1.26 (0.70, 2.24)
	2,500–4,499	296 (89%)	2,662,632 (93%)	1
	4,500+	13 (4%)	95,721 (3%)	1.22 (0.70, 2.13)
Apgar score	Missing	18 (5%)	238,276 (8%)	
	0–6	7 (2%)	34,493 (1%)	1.72 (0.81, 3.64)
	7–10	306 (93%)	2,597,749 (91%)	1
Birth trauma	No	325 (98%)	2,778,735 (97%)	1
	Yes	6 (2%)	91,783 (3%)	0.56 (0.25, 1.25)
Malformation	No	307 (93%)	2,748,213 (96%)	1
	Yes	24 (7%)	122,305 (4%)	1.76 (1.16, 2.66)

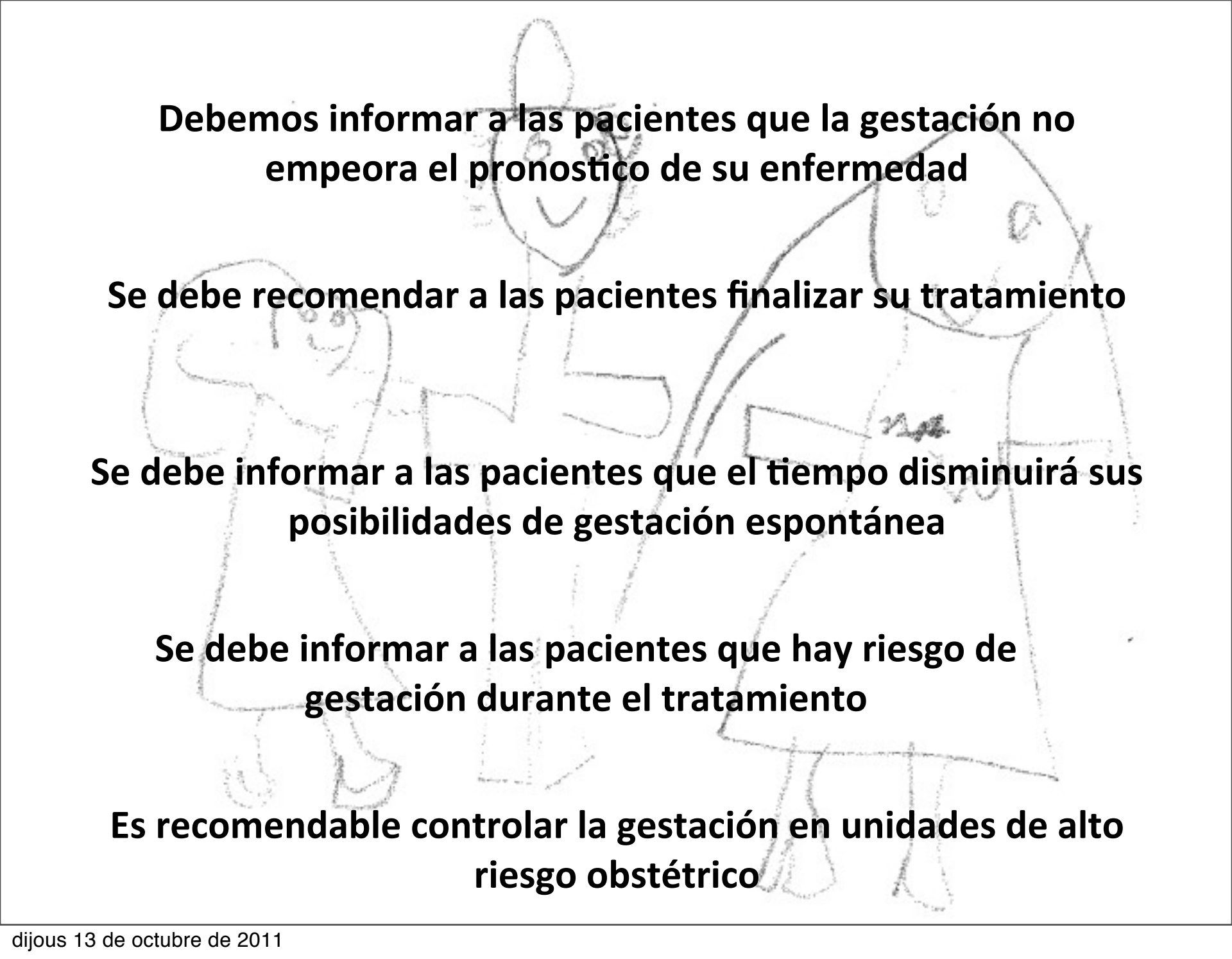
Mayor riesgo de prematuridad y bajo peso

Dalberg Plos Med 2006

Control de gestación en unidad de alto riesgo obstétrico

Lactancia

- No contraindicada
- Dificultará la realización de controles
  - Disminuirá la sensibilidad de la EF
  - Disminuirá la sensibilidad y especificidad de la mamografía
- En mamas irradiadas puede haber más riesgo de estásis y de mastitis



Debemos informar a las pacientes que la gestación no empeora el pronostico de su enfermedad

Se debe recomendar a las pacientes finalizar su tratamiento

Se debe informar a las pacientes que el tiempo disminuirá sus posibilidades de gestación espontánea

Se debe informar a las pacientes que hay riesgo de gestación durante el tratamiento

Es recomendable controlar la gestación en unidades de alto riesgo obstétrico

ocordoba@vhebron.net