



# RCP de la SFSPM RENNES JUIN 2015

Anne LESUR, responsable du PARCOURS SEIN ICL



**Institut  
de Cancérologie  
de Lorraine**

Alexis Vautrin

**Ensemble, construisons l'avenir**



# Ovaires actifs ou non ?

*Modérateur : Pierre Kerbrat (Rennes)*

**Peut-on ne pas administrer une irradiation sur 5 semaines après chirurgie conservatrice pour un carcinome canalaire invasif ?**

*Erik Monpetit (Clinique Océane, Vannes)*

**Peut-on ne pas proposer de traitement adjuvant chez une femme âgée présentant un cancer "à risque" ?**

*Daniel Gedouin (Centre Eugène Marquis, Rennes)*

**Peut-on ne pas proposer de suppression ovarienne pour une tumeur RH+ en pré ménopause ?**

*Anne Lesur (Institut de cancérologie de Lorraine Alexis Vautrin, Nancy)*

## Pause

**Peut-on ne pas proposer de traitement adjuvant pour un carcinome infiltrant RH+ HER2- de moins d'un centimètre ?**

*Christophe Perrin (Centre Eugène Marquis, Rennes)*

**Peut-on ne pas proposer de traitement adjuvant pour un cancer HER2+ ?**

*Mario Campone (ICO, Centre René Gauducheau, Nantes)*

**Conclusion : En 2015, peut-on prendre une décision sans la RCP ?**

*Anne Lesur, Pierre Kerbrat*



# CAS CLINIQUES ...

## ■ CAS UN :

- **34 ans**, deux enfants de 4 et 6 ans, souhaite autre grossesse
- 1m68 58 kilos SG 85 B
- Mère décédée il y a un an d'un cancer du sein, grand-mère Cancer du sein
- Nodule QSE gauche de l'ordre du cm
- Microbiopsie : CCI grade I, RH+++, HER2 – Ki 67 17%
- MP GS CURAGE gauche : CCI grade I 0,8x0,9cm N+( 3/16)

## Questions :

- Chimio ?
- Chimio et analogues?
- Analogues et TAM? Sans chimio ?
- Analogues et AI ? Sans chimio ?
- ***Si chimio , quelle hormono ensuite ?***



# Cas deux ....

- **39 ans**, un enfant, pas de désir de grossesse
- 66 kilos 1m66 90 D
- Autopalpation nodule QII droit de 2, 5 cm
- CCI grade III, RH+++, HER2- pas de Ki 67
- Cytoponction axillaire +
- 16 01 2008 : MP CURAGE : CCI grade III Pt 2,5 cm  
, CCIS en périphérie, marges non saines, **N+ 29/38**  
**RH +++ HER2 – Ki 67 45 % embols**

## **Questions**

- *Chimio ? Blocage ovarien ?*
- *Hormono ? Laquelle ? Combien de temps ?*



# Avant la ménopause ....

■ **Tamoxifène 5 ans ... avantage /inconvenient**

■ **Alternatives ?**

■ **Suppression ovarienne à la place , ou avec  
....question de l'essai SOFT ...**

■ **Suppression ovarienne et Inhibiteurs de l'AROMATASE ?  
.....Dans quelques cas triés.....**



# La problématique .....

## ■ Tamoxifène seul : oui ou non ?

- Non pendant des années car augmentation estrogènes
- Oui à partir des années 1985 , résultats de l'EBCTCG
- Un doute mais jamais rien de formel
- En métastatique , mieux avec blocage ovarien

## ■ Valeur de l'aménorrhée chimio induite ?

- Si Tamoxifène ensuite, intérêt de la question ?
- Question rémanente jamais résolue.... 2015...

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DOI: 10.1097/gme.0000000000000440  
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OPEN

Prognostic impact of chemotherapy-induced amenorrhea on premenopausal breast cancer: a meta-analysis of the literature

Qiong Zhou, MM,<sup>1,2,3</sup> Wenjin Yin, MD,<sup>2,3</sup> Yueyao Du, MD,<sup>2,3,4</sup> Zhenzhou Shen, MD,<sup>2,3</sup> and Jingsong Lu, MD<sup>2,3,4</sup>

### Abstract

**Objective:** We conducted this meta-analysis of published data to assess the exact prognostic value of adjuvant chemotherapy-induced amenorrhea (CIA) as a prognostic factor for premenopausal breast cancer.

Breast Cancer Res Treat (2014) 145:113–128  
DOI 10.1007/s10549-014-2914-x

CLINICAL TRIAL

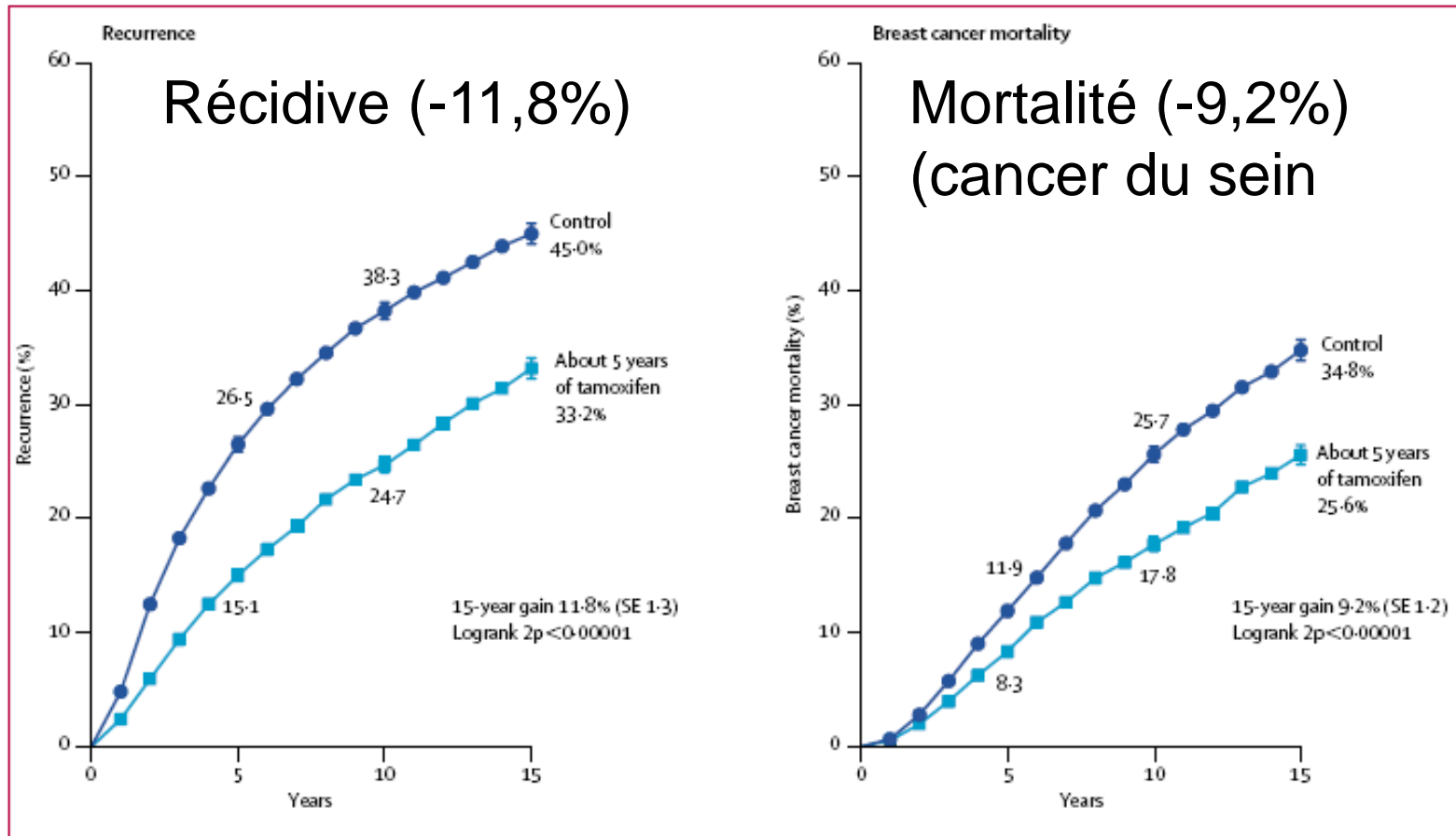
What lies behind chemotherapy-induced amenorrhea for breast cancer patients: a meta-analysis

Jianli Zhao · Jieqiong Liu · Kai Chen · Shunrong Li · Ying Wang · Yaping Yang · Heran Deng · Weijuan Jia · Nanyan Rao · Qiang Liu · Fengxi Su



# Tamoxifène $\cong$ 5 ans versus controle

À 15 ans .....

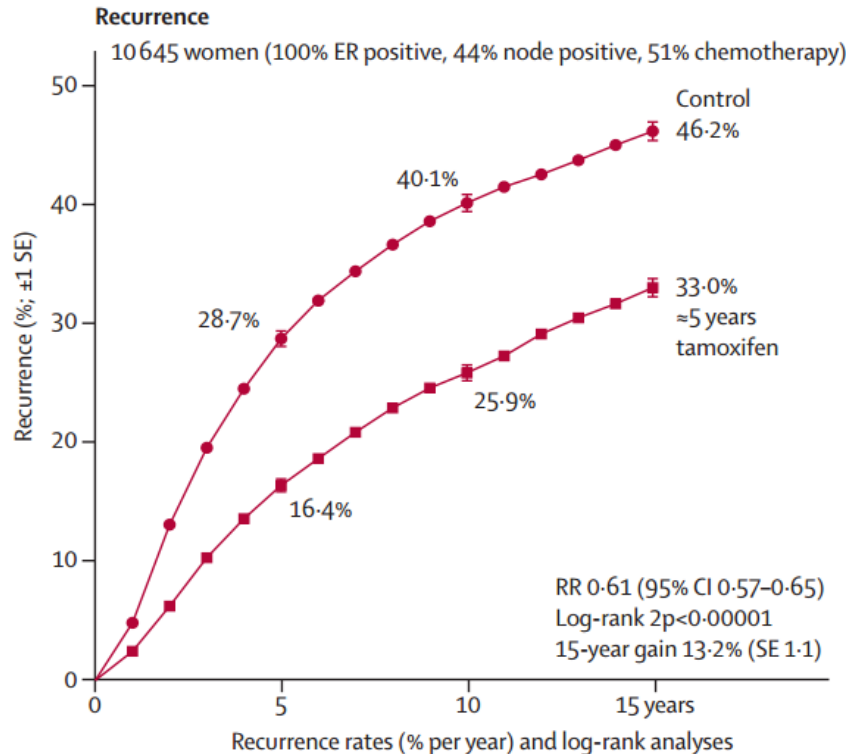


EBCTG Lancet 2005; 365: 1687–1717

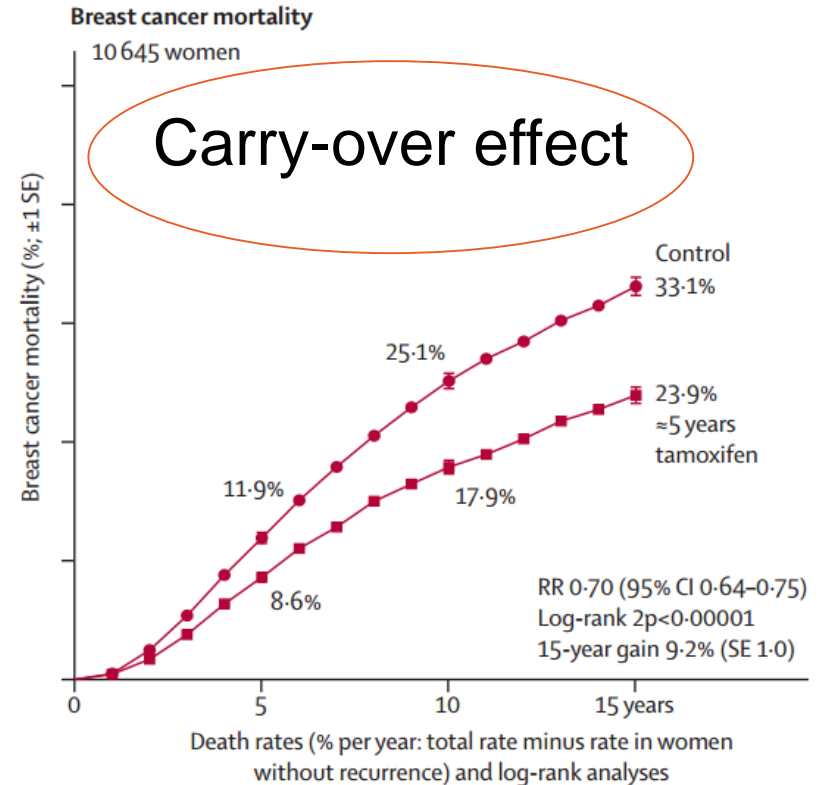




# Au cours du temps .....



	Years 0-4	Years 5-9	Years 10-14	Year 15+
Tamoxifen	3.74 (891/23 819)	2.62 (454/17 315)	2.06 (220/10 657)	1.75 (88/5034)
Control	6.71 (1466/21 862)	3.46 (499/14 420)	2.11 (182/8620)	1.76 (71/4045)
Rate ratio	0.53 (SE 0.03)	0.68 (SE 0.06)	0.97 (SE 0.10)	0.88 (SE 0.16)
(O-E)/V	-343.3/535.1	-82.5/217.5	-3.3/93.3	-4.4/35.5



	Years 0-4	Years 5-9	Years 10-14	Year 15+
Tamoxifen	1.79 (SE 0.08)	2.25 (SE 0.11)	1.54 (SE 0.11)	1.48 (SE 0.16)
Control	2.46 (SE 0.10)	3.23 (SE 0.13)	2.28 (SE 0.14)	1.89 (SE 0.19)
Rate ratio	0.71 (SE 0.05)	0.66 (SE 0.05)	0.68 (SE 0.08)	0.88 (SE 0.14)
(O-E)/V	-84.4/244.8	-95.8/233.2	-38.6/99.4	-5.7/42.6

*Davies et al, Lancet 2011*





# Les questions ...

- **Tam seul : encore utilisable ?**
  - Chez les patientes de bon pronostic ...
- **Tam et analogues : chez qui ?**
  - Très jeunes , pas en aménorrhée après chimio
  - Pendant combien de temps ?
- **AI et analogues : cinq ans : raisonnable ?**
  - Effet délétère de la SO associée aux AI ++++
  - Suivi à long terme ?
  - Quid d'une grossesse après une privation pareille?



# Les choix et les problématiques....

- *It will thus continue to be a challenge in practice to choose between*
  - ***tamoxifen monotherapy for 10 years,***
  - ***tamoxifen for 5 years*** followed by an ***aromatase inhibitor*** for the patient who becomes naturally menopausal during tamoxifen treatment,
  - ***5 years of aromatase inhibitor plus OFS*** for premenopausal patients, even if the SOFT trial shows benefit of 5 years of tamoxifen plus OFS compared with 5 years of tamoxifen alone.

The Breast 22 (2013) 1094–1100



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## Original article

## Adjuvant treatment of premenopausal women with endocrine-responsive early breast cancer: Design of the TEXT and SOFT trials



Meredith M. Regan <sup>a, b, \*</sup>, Olivia Pagani <sup>c, d</sup>, Gini F. Fleming <sup>e</sup>, Barbara A. Walley <sup>f</sup>, Karen N. Price <sup>a, g</sup>, Manuela Rabaglio <sup>h, i</sup>, Rudolf Maibach <sup>h</sup>, Barbara Ruepp <sup>h</sup>, Alan S. Coates <sup>c, j</sup>, Aron Goldhirsch <sup>c, k</sup>, Marco Colleoni <sup>c, k</sup>, Richard D. Gelber <sup>a, b, g, l</sup>, Prudence A. Francis <sup>c, m, n</sup>, on behalf of the International Breast Cancer Study Group (IBCSG) and the SOFT and TEXT Investigators<sup>1</sup>

<sup>1</sup> International Breast Cancer Study Group Statistical Center, Dana-Farber Cancer Institute, Boston, MA, USA

# Design des études TEXT /SOFT

*M.M. Regan et al. / The Breast 22 (2013) 1094–1100*

## TEXT

Population: Premenopausal women with endocrine-responsive early breast cancer who should receive OFS from the start of adjuvant therapy.

Enrollment November 2003 through April 2011

Final accrual: 2672 (revised target: 2639)

### Stratify:

- Chemo planned
- Nodal Status

R  
A  
N  
D  
O  
M  
I  
Z  
E

Tamoxifen + OFS (Triptorelin)

Exemestane + OFS (Triptorelin)

## SOFT

Population: Premenopausal women with endocrine-responsive early breast cancer who remain premenopausal after chemotherapy or after surgery alone.

Enrollment December 2003 through January 2011

Final accrual: 3066 (target: 3000)

### Stratify:

- Prior chemo
- Intended OFS
- Nodal Status

R  
A  
N  
D  
O  
M  
I  
Z  
E

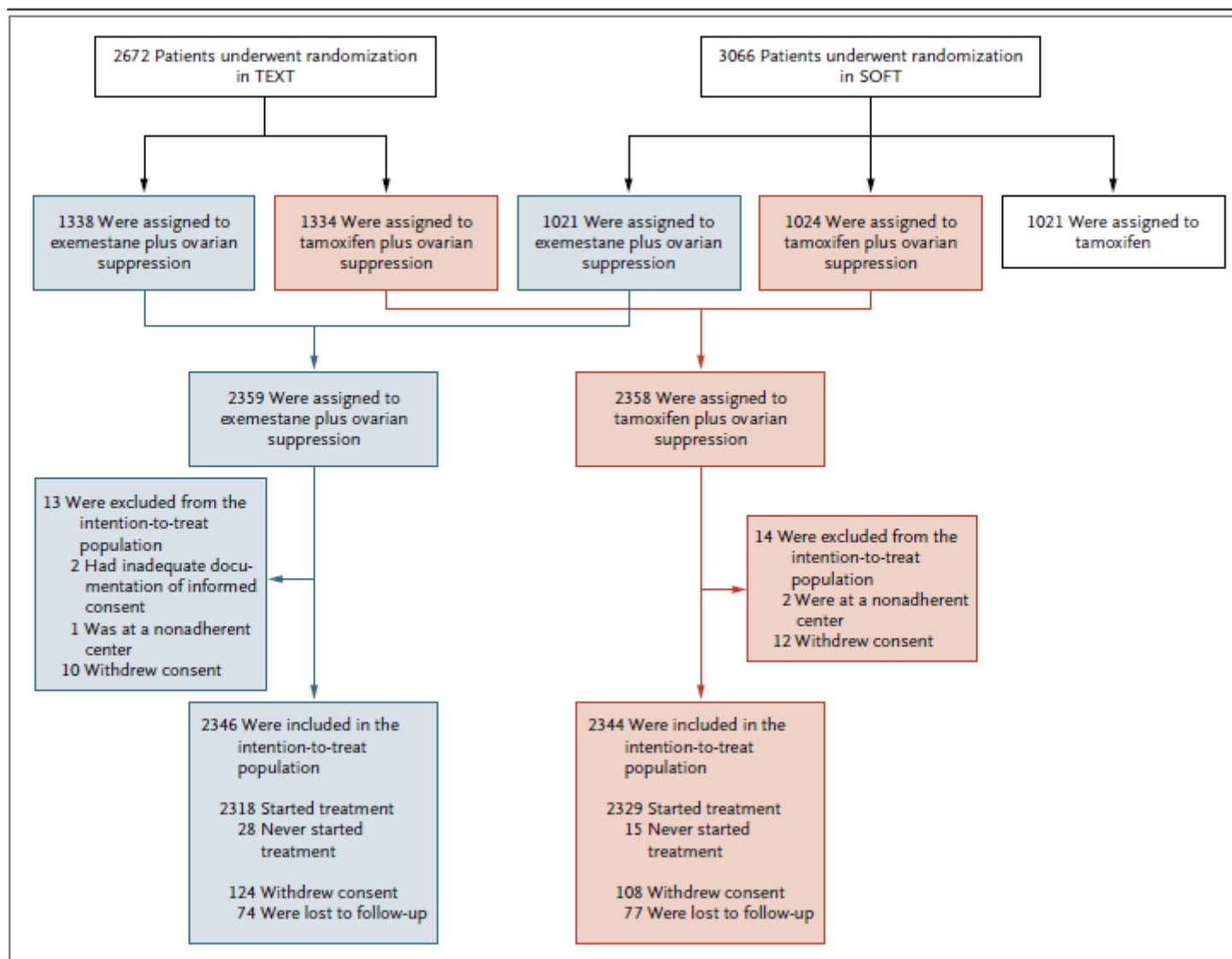
Tamoxifen

Tamoxifen + OFS

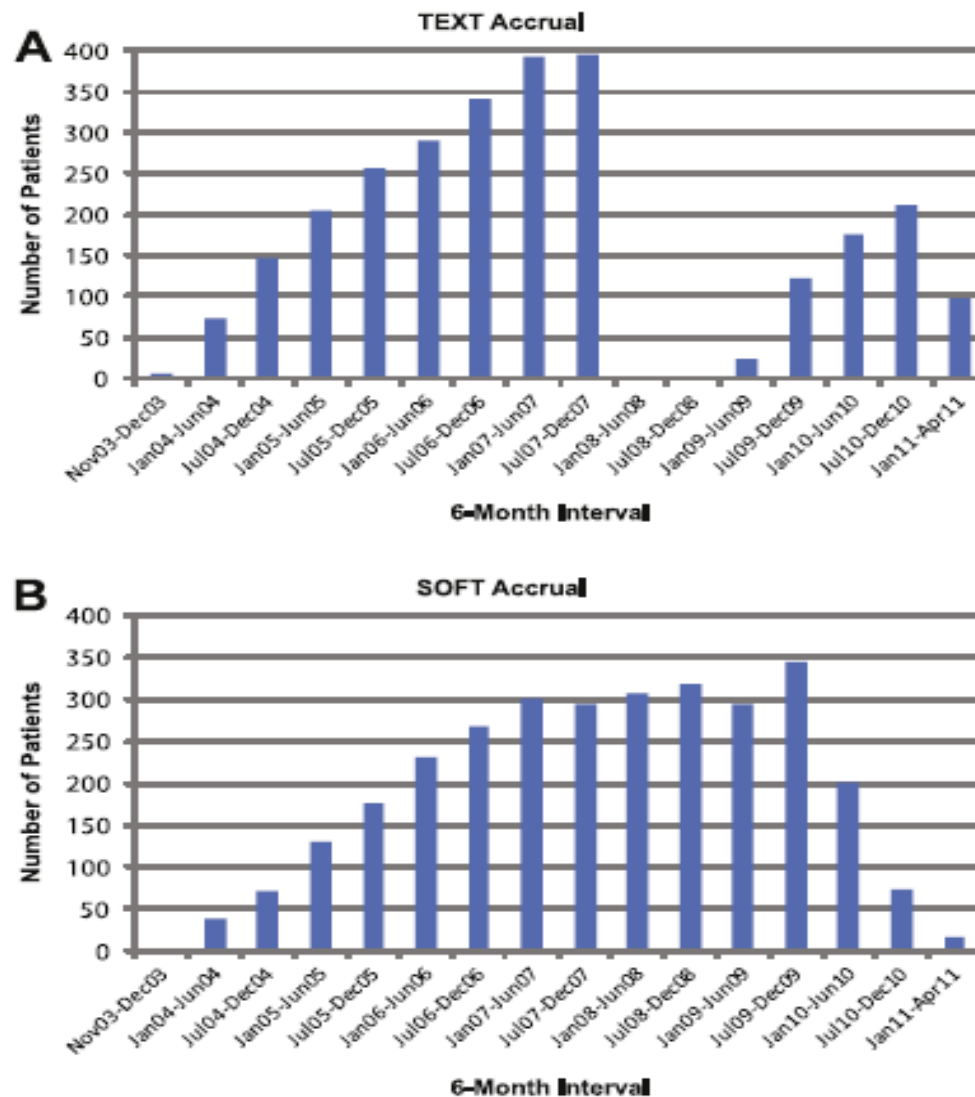
Exemestane + OFS



# Randomisation et suivi ....



# C'était long et laborieux .....



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## Adjuvant Exemestane with Ovarian Suppression in Premenopausal Breast Cancer

Olivia Pagani, M.D., Meredith M. Regan, Sc.D., Barbara A. Walley, M.D., Gini F. Fleming, M.D., Marco Colleoni, M.D., István Láng, M.D., Henry L. Gomez, M.D., Carlo Tondini, M.D., Harold J. Burstein, M.D., Edith A. Perez, M.D., Eva Ciruelos, M.D., Vered Stearns, M.D., Hervé R. Bonnefoi, M.D., Silvana Martino, D.O., Charles E. Geyer, Jr., M.D., Graziella Pinotti, M.D., Fabio Puglisi, M.D., Diana Crivellari, M.D., Thomas Ruhstaller, M.D., Eric P. Winer, M.D., Manuela Rabaglio-Poretti, M.D., Rudolf Maibach, Ph.D., Barbara Ruepp, Pharm.D., Anita Giobbie-Hurder, M.S., Karen N. Price, B.S., Jürg Bernhard, Ph.D., Weixiu Luo, M.S., Karin Ribí, Ph.D., Giuseppe Viale, M.D., Alan S. Coates, M.D., Richard D. Gelber, Ph.D., Aron Goldhirsch, M.D., and Prudence A. Francis, M.D.,

■ Résultats combinés TEXT / SOFT juillet 2014



# Les analyses programmées...

<b>A</b>	
TEXT	SOFT
	Tamoxifen (N=1021)
Tamoxifen + OFS (N=1334)	Tamoxifen + OFS (N=1024)
Exemestane + OFS (N=1338)	Exemestane + OFS (N=1021)
<b>B</b>	
TEXT	SOFT
	Tamoxifen (N=1021)
Tamoxifen + OFS (N=1334)	Tamoxifen + OFS (N=1024)
Exemestane + OFS (N=1338)	Exemestane + OFS (N=1021)

Fig. 3. The two planned primary efficacy analyses to answer questions concerning adjuvant treatment for premenopausal women with endocrine-responsive early breast cancer: (A) What is the role of aromatase inhibitors? Comparison of exemestane + OFS versus tamoxifen + OFS by combining the common treatment arms of the TEXT and SOFT trials ( $N = 4717$  randomized). (B) What is the role of OFS for women who remain premenopausal? Comparison of tamoxifen + OFS versus tamoxifen alone in SOFT ( $N = 2045$  randomized). Abbreviations: TEXT = Tamoxifen and Exemestane Trial; SOFT = Suppression of Ovarian Function Trial; Chemo = chemotherapy; OFS = ovarian function suppression.

## RESULTS

### STUDY POPULATION

From November 2003 through April 2011, we randomly assigned 2359 premenopausal women to exemestane plus ovarian suppression and 2358 to tamoxifen plus ovarian suppression. Two thirds of the women were enrolled at BIG centers and one third at North American centers. After exclusions, 4690 women were included in the intention-to-treat population (Fig. 1). The median age of the patients at randomization was 43 years (Table 1). A total of 42.6% of the patients did not receive chemotherapy, and 57.4% received chemotherapy either after randomization in TEXT (34.3% of all patients) or before randomization in SOFT (23.2%). Among patients in SOFT who had received chemotherapy previously, 41.7% had received tamoxifen for an average of 4 months before randomization while waiting for premenopausal status to be established or reestablished. Node-positive disease was present in 42.2% of the patients overall, and in 20.7% and 8.3% of the patients in TEXT and SOFT, respectively, who

**dans SOFT , si  
chimio, et aménorrhée  
41, 7% ont eu en  
moyenne 4 mois de  
TAMOXIFENE,  
en attendant de savoir  
si elles reprenaient une  
activité ovarienne**



# Qualité de vie .....

**Table 2. Targeted Adverse Events Reported during Follow-up, According to Treatment Assignment.\***

Adverse Event	Exemestane plus Ovarian Suppression (N=2318)				Tamoxifen plus Ovarian Suppression (N=2325)			
	Any Event		Grade 3 or 4 Event		Any Event		Grade 3 or 4 Event	
	no. of patients with event	% (95% CI)	no. of patients with event	% (95% CI)	no. of patients with event	% (95% CI)	no. of patients with event	% (95% CI)
Allergic reaction or hypersensitivity	115	5.0 (4.1–5.9)	11	0.5 (0.2–0.8)	107	4.6 (3.8–5.5)	9	0.4 (0.2–0.7)
Injection-site reaction	168	7.2 (6.2–8.4)	1	<0.1 (0.0–0.2)	187	8.0 (7.0–9.2)	1	<0.1 (0.0–0.2)
Hot flushes	2125	91.7 (90.5–92.8)	232	10.0 (8.8–11.3)	2169	93.3 (92.2–94.3)	279	12.0 (10.7–13.4)
Depression	1165	50.3 (48.2–52.3)	87	3.8 (3.0–4.6)	1164	50.1 (48.0–52.1)	102	4.4 (3.6–5.2)
Sweating	1264	54.5 (52.5–56.6)	—	—	1371	59.0 (56.9–61.0)	—	—
Insomnia	1348	58.2 (56.1–60.2)	89	3.8 (3.1–4.7)	1361	58.5 (56.5–60.5)	100	4.3 (3.5–5.2)
Fatigue	1420	61.3 (59.2–63.2)	73	3.1 (2.5–3.9)	1463	62.9 (60.9–64.9)	67	2.9 (2.2–3.6)
Hypertension	587	25.3 (23.8–26.8)	151	6.5 (5.8–7.3)	588	25.3 (23.8–26.8)	159	7.0 (6.2–8.0)
Cardiac ischemia or infarction	16	0.7 (0.4–1.1)	7	0.3 (0.1–0.6)	7	0.3 (0.1–0.6)	3	0.1 (0.0–0.4)
Thrombosis or embolism	24	1.0 (0.7–1.5)	19	0.8 (0.5–1.3)	50	2.2 (1.6–2.8)	45	1.9 (1.4–2.6)
Nausea	721	31.1 (29.2–33.0)	17	0.7 (0.4–1.2)	671	28.9 (27.0–30.7)	13	0.6 (0.3–1.0)
Musculoskeletal symptoms	2057	88.7 (87.4–90.0)	254	11.0 (9.7–12.3)	1766	76.0 (74.2–77.7)	122	5.2 (4.4–6.2)
Osteoporosis	894	38.6 (36.6–40.6)	10	0.4 (0.2–0.8)	586	25.2 (23.5–27.0)	6	0.3 (0.1–0.6)
Fractures	158	6.8 (5.8–7.9)	29	1.3 (0.8–1.8)	120	5.2 (4.3–6.1)	18	0.8 (0.5–1.2)
Vaginal dryness	1214	52.4 (50.3–54.4)	—	—	1101	47.4 (45.3–49.4)	—	—
Decreased libido	1042	45.0 (42.9–47.0)	—	—	950	40.9 (38.9–42.9)	—	—
Dyspareunia	707	30.5 (28.6–32.4)	53	2.3 (1.7–3.0)	601	25.8 (24.1–27.7)	32	1.4 (0.9–1.9)
Urinary incontinence	304	13.1 (11.8–14.6)	6	0.3 (0.1–0.6)	414	17.8 (16.3–19.4)	7	0.3 (0.1–0.6)
CNS cerebrovascular ischemia	5	0.2 (0.1–0.5)	4	0.2 (0.0–0.4)	11	0.5 (0.2–0.8)	8	0.3 (0.1–0.7)
CNS hemorrhage	15	0.6 (0.4–1.1)	1	<0.1 (0.0–0.2)	21	0.9 (0.6–1.4)	2	0.1 (0.0–0.3)
Glucose intolerance†	54	2.3 (1.8–3.0)	11	0.5 (0.2–0.8)	54	2.3 (1.7–3.0)	15	0.6 (0.4–1.1)
Hyperglycemia†	61	2.6 (2.0–3.4)	13	0.6 (0.3–1.0)	80	3.4 (2.7–4.3)	15	0.6 (0.4–1.1)
Any targeted adverse event	2279	98.3 (97.7–98.8)	710	30.6 (28.8–32.6)	2285	98.3 (97.7–98.8)	683	29.4 (27.5–31.3)

\* The information here includes data from the 4643 patients in the safety population who received a protocol-assigned treatment. Targeted adverse events and other adverse events of grade 3 or higher were categorized according to the *Common Terminology Criteria for Adverse Events*, version 3.0.<sup>15</sup> Dashes indicate that grade 3 or 4 was not a possible grading for that adverse event. No patient had a targeted adverse event of grade 5. CNS denotes central nervous system.

† Glucose intolerance (diabetes) and hyperglycemia were added as targeted adverse events in 2011 and therefore may be underreported.

## *Which Is the Appropriate Adjuvant Endocrine Therapy for Premenopausal Patients With Breast Cancer?*

### **Discussion**

One question is whether these results are so relevant and practice changing to the point that TAM alone should be completely abandoned as adjuvant hormonal therapy for premenopausal patients with breast cancer. Another question is whether similar OS and 4% gain in DFS would justify the choice of exemestane plus ovarian suppression upfront in all subjects. A final question is whether possible reasons exist to explain the inferior outcome with TAM plus ovarian suppression.

First, a median follow-up period of about 5 years is not that meaningful in breast cancer, for which late events are expected, and TAM exerts a well-known carryover effect for  $\leq 10$  to 15 years after the start of therapy.<sup>5</sup> Second, it is unknown whether it is the class or the therapy duration that matters in ER<sup>+</sup> breast cancer. Two large trials have shown a significant benefit for 10 compared with 5 years of adjuvant TAM for breast cancer.<sup>6,7</sup>



# SOFT

## san antonio décembre 2014

The NEW ENGLAND JOURNAL of MEDICINE

### ORIGINAL ARTICLE

## Adjuvant Ovarian Suppression in Premenopausal Breast Cancer

Prudence A. Francis, M.D., Meredith M. Regan, Sc.D., Gini F. Fleming, M.D.,  
István Láng, M.D., Eva Ciruelos, M.D., Meritxell Bellet, M.D., Hervé R. Bonnefoi, M.D.,  
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and Richard D. Gelber, Ph.D., for the SOFT Investigators  
and the International Breast Cancer Study Group\*

### ABSTRACT





## Perfecting Breast-Cancer Treatment — Incremental Gains and Musculoskeletal Pains

Dawn L. Hershman, M.D.

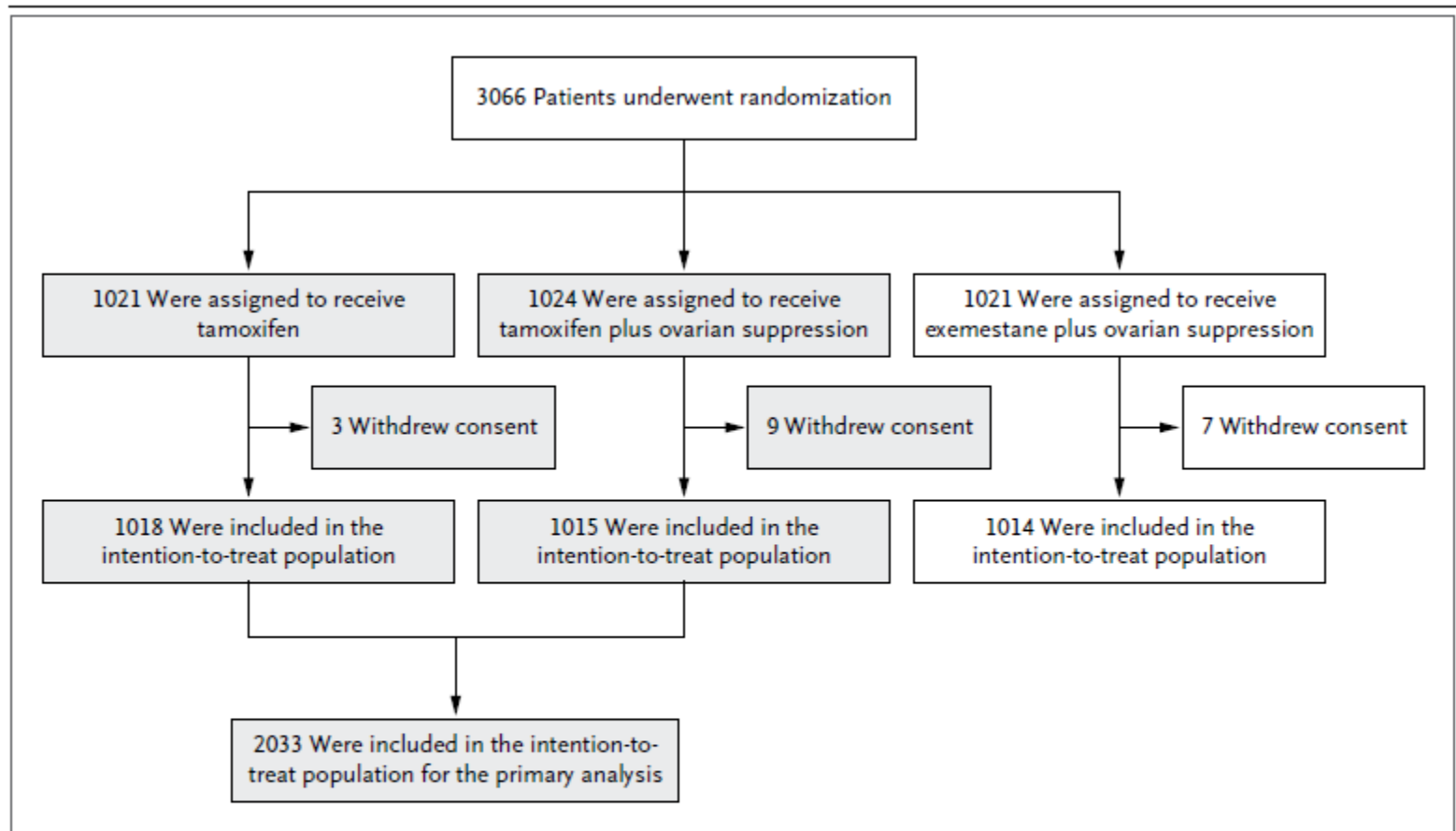
A fundamental feature of adjuvant therapy (treatment of apparently disease-free people to reduce the risk of recurrence) is that many are treated to benefit a few. The options for the adjuvant treatment of hormone-sensitive breast cancer have expanded in recent years. On the basis of meta-analyses of individual-patient data in studies dating back to 1985, tamoxifen has remained the standard of care in breast cancer. Tamoxifen reduces the annual rates of breast-cancer recurrence by almost half and mortality by one third. In absolute terms, this translates to 11.8 fewer recurrences and 9.2 fewer deaths per 100 women at 15 years. The benefits are similar for both younger women and older women.<sup>1</sup>

The introduction of adjuvant aromatase inhibitors has resulted in incremental improvements in breast-cancer outcomes in postmenopausal women. The replacement of tamoxifen with aromatase inhibitors results in a modest absolute reduction of 2.7 percentage points in the rate of recurrence at 5 years.<sup>2</sup> The sequential use of aromatase inhibitors after tamoxifen also results in an absolute reduction of 2.5 percentage points in the rate of recurrence.<sup>3</sup> No mortality benefit has been shown in these studies to date. Finally, continuing tamoxifen for 10 years, as opposed to 5 years, decreases the risks of recur-

rian suppression plus tamoxifen.<sup>6</sup> The combined results clarify that the real benefit is with the combination of ovarian suppression plus exemestane, as compared with tamoxifen alone. We also know that tamoxifen administered for 10 years continuously or for 5 years followed by an aromatase inhibitor increases disease-free survival by a similar rate of 2.5 to 3.5 percentage points, as compared with tamoxifen alone. Because the incremental benefits of these new treatments are small, trying to choose the best of many good options becomes a complex and often anxiety-provoking decision for women. It is easy to lose track of the fact that substantial progress has been made in improving breast-cancer outcomes regardless of the treatment we choose.

If the new treatments did not cause additional side effects, the decisions would be much easier. But unfortunately, they do. As a result, many women do not complete the recommended course of hormone therapy.<sup>7</sup> For women receiving hormone therapy, especially aromatase inhibitors, musculoskeletal pain and stiffness are the most commonly reported toxic effects.<sup>8</sup> In these two trials,<sup>5,6</sup> 69.0% of the women who received tamoxifen alone, as compared with 88.7% of those who received ovarian suppression plus exemestane, reported musculoskeletal symptoms.

# Détails de SOFT



**Figure 1. Randomization and Primary Analysis Populations.**

The flow diagram shows the intention-to-treat population of 2033 patients included in the primary analysis (shaded) of tamoxifen plus ovarian suppression, as compared with tamoxifen alone, and the analogous population of patients assigned to receive exemestane plus ovarian suppression. Additional details are provided in Figure S1 in the Supplementary Appendix.





## Détail méthodologique SOFT

- Between December **2003** and January **2011**, SOFT enrolled 3066 patients (Fig. 2(B)).
- The median age was 43 years (IQR, 38e47) and **35%** of patients had **node-positive** disease (Table 1)
- **53%** of patients were randomized after prior (neo)adjuvant chemotherapy and their median time from surgery was 8 months (IQR, 6e10);
- the remaining 47% of patients were randomized after surgery at a median time from surgery of 2 months (IQR, 1.2e2.4). If randomized to OFS, 91% of patients planned GnRH-analog as the initial method of OFS.



# Hormono avant randomisation

Characteristic	Chemotherapy Stratum				Overall	
	No Chemotherapy		Prior Chemotherapy			
	All		All			
	N	%	N	%	N	%
Other <sup>2</sup>	10	1.1	12	1.1	22	1.1
Prior endocrine therapy <sup>3</sup>						
No	902	95.0	609	56.2	1511	74.3
Yes	47	5.0	475	43.8	522	25.7
HER2-targeted therapy						
Not HER2+	909	95.8	883	81.5	1792	88.1
HER2+, no therapy	39	4.1	61	5.6	100	4.9
HER2-targeted therapy	1	0.1	140	12.9	141	6.9

Abbreviations: BCS=breast-conserving surgery; ER=estrogen receptor; IQR=interquartile range;

PgR=progesterone receptor; OFS=ovarian function suppression; RT=radiotherapy.

<sup>1</sup>Other includes ER- and PgR-unknown, or ER- and PgR-negative.

<sup>2</sup>Other includes BCS without RT, or RT unknown.

<sup>3</sup>Oral endocrine therapy prior to randomization was allowed in SOFT while premenopausal status was

# Recognizing menopause in women with amenorrhea induced by cytotoxic chemotherapy for endocrine-responsive early breast cancer

Francesco Torino, Agnese Barnabei<sup>1</sup>, Liana De Vecchis<sup>2</sup>,  
Marialuisa Appetecchia<sup>1</sup>, Lidia Strigari<sup>3</sup> and Salvatore M Corsello<sup>4</sup>

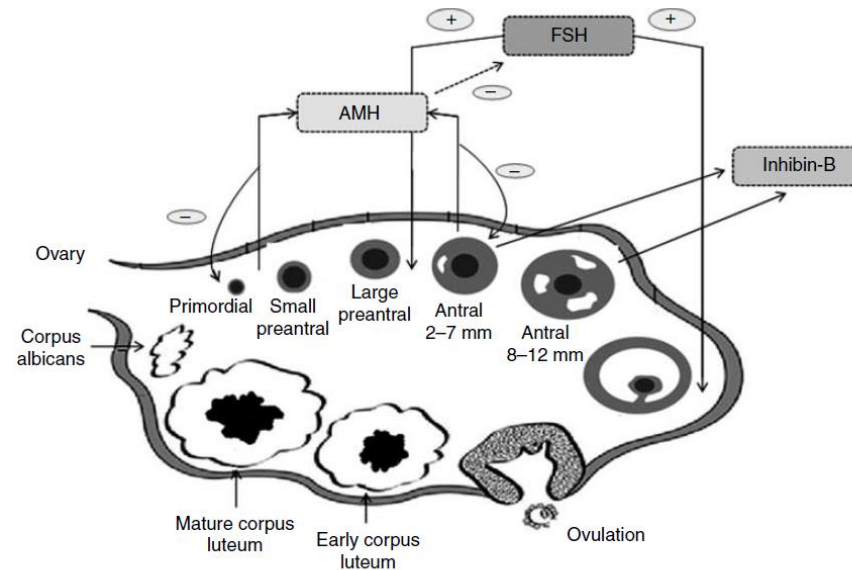


Figure 1 Selective activity of FSH, AMH, and inhibin-B on folliculogenesis. Initial follicle recruitment is a continuous process,

# SOFT: SUPPRESSION of OVARIAN FUNCTION TRIAL

## Premenopausal ER+ve and/or PR+ve Breast Cancer

**3047 Patients Randomized in ITT, Dec 2003 - Jan 2011**

### Primary Analysis (n= 2033)

**Median follow-up 5.6 years**

### Two Patient Cohorts (stratified)

**No Chemotherapy (47%)**

Premenopausal, within 12 weeks of surgery  
(Median time since surgery = **1.8 months**)

### Prior Chemotherapy (53%)

Premenopausal\* after completing chemotherapy;  
Randomization within 8 months of completion  
(Median time since surgery = **8.0 months**)

## RANDOMIZE

→ Tamoxifen x 5y (n=1018)

→ Tamoxifen+OFS x 5y (n=1015)

→ Exemestane+OFS x 5y (n=1014)

**OFS=ovarian function suppression**  
(GnRH triptorelin, oophorectomy or irradiation)

\*According to locally-determined  $E_2$  level in premenopausal range

## Objectif principal : DFS (Tape)

**Francis, NEJM 2014**





Une stratification en fonction de l'administration d'une CT

Une analyse planifiée selon l'administration de la CT

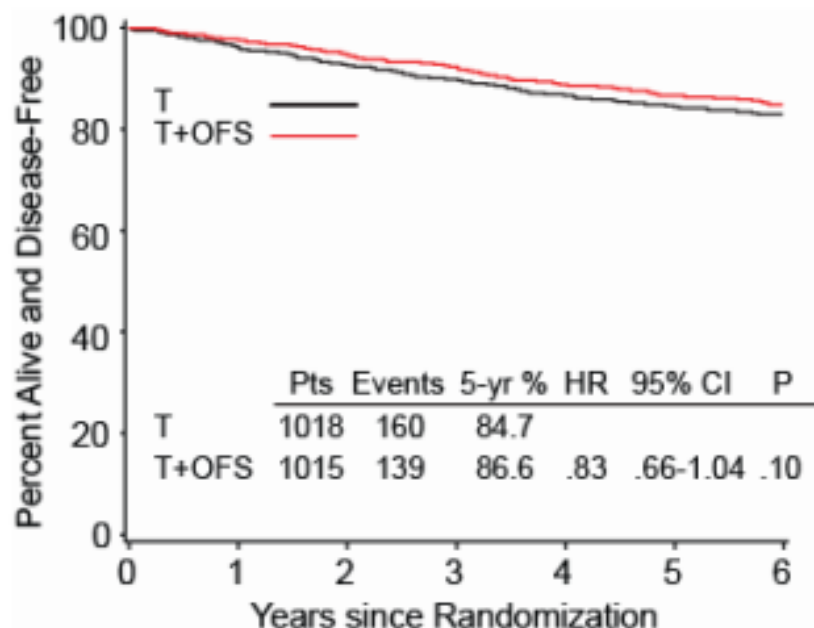
## Primary Analysis: Patient Characteristics

	No chemo 47% (n=949)	Prior Chemo 53% (n=1084)	Overall (n=2033)
Median age	46 y	40 y	43 y
Lymph Node +ve	9%	57%	35%
Tumor > 2 cm	14%	47%	32%
Grade 1	41%	14%	27%
Grade 3	7%	35%	22%
HER2+ve	4%	18%	12%
Median time since surgery	1.8 mo	8.0 mo	3.2 mo

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# Primary Analysis: Disease-free Survival

5.6 years median follow-up



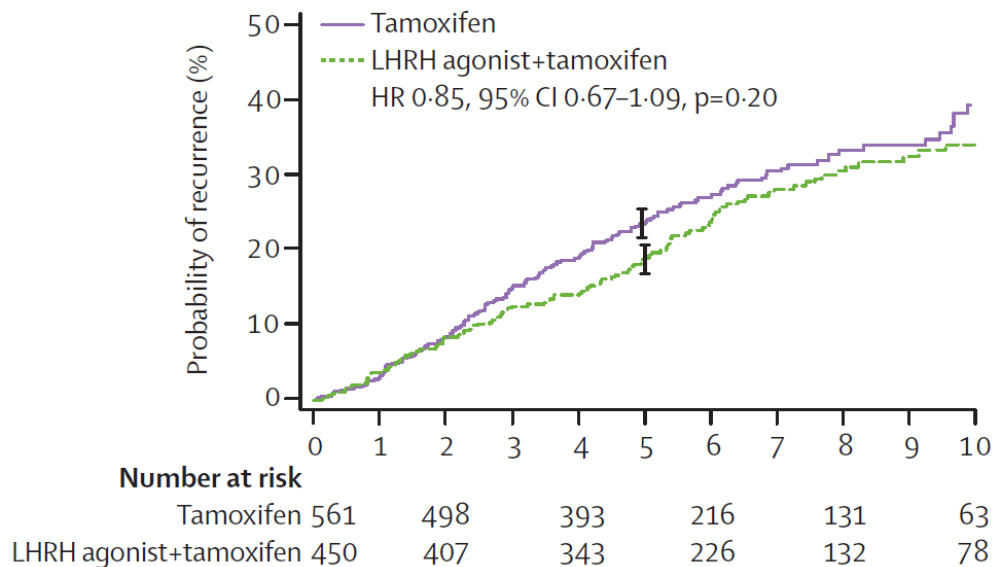
Primary analysis in overall population not significant ( $p=0.10$ )

Multivariable Cox model HR=0.78 (95% CI 0.62-0.98)  $p=0.03$

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# Patientes non MP : Tam seul ou avec supp. ovarienne ?

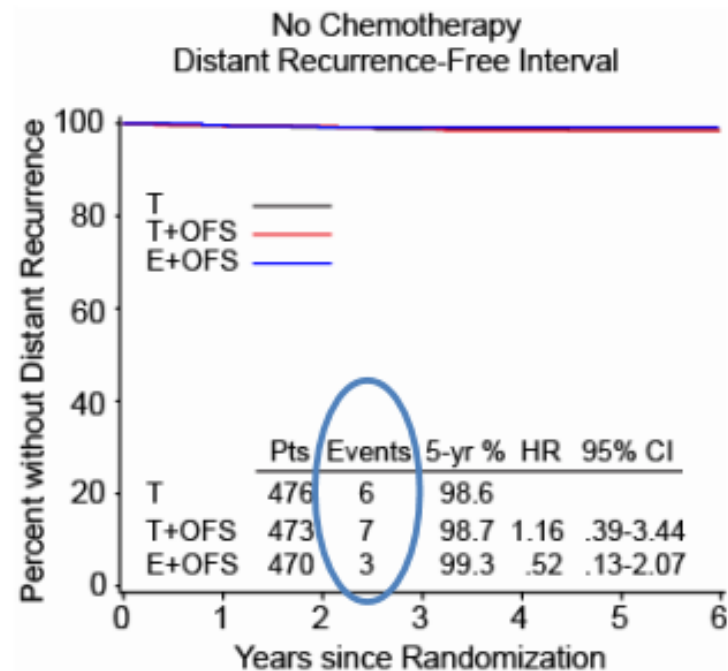
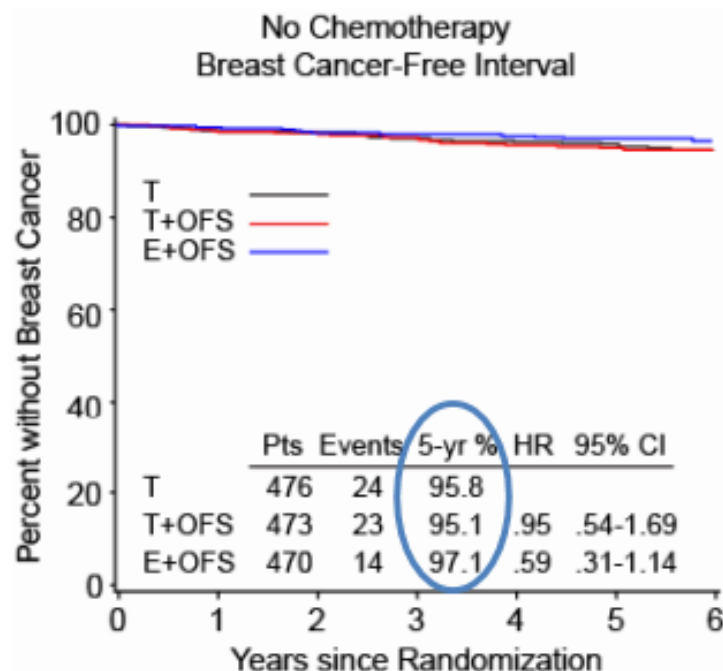


N = 1 013	Réduction du risque de rechute	Réduction du risque de décès
	15 % [IC 95% : 0,67 – 1,09] P = 0,20	16 % [IC 95% : 0,59 – 1,19] P = 0,33

Une absence de bénéfice démontré à bloquer les ovaires en phase adjuvante chez les patientes non ménopausées



# Premenopausal No Chemotherapy



Cohort selected for low risk clinicopathologic features  
90%  $\geq$  age 40yr, 91% node negative, 85% tumor  $\leq$  2cm, 41% grade 1

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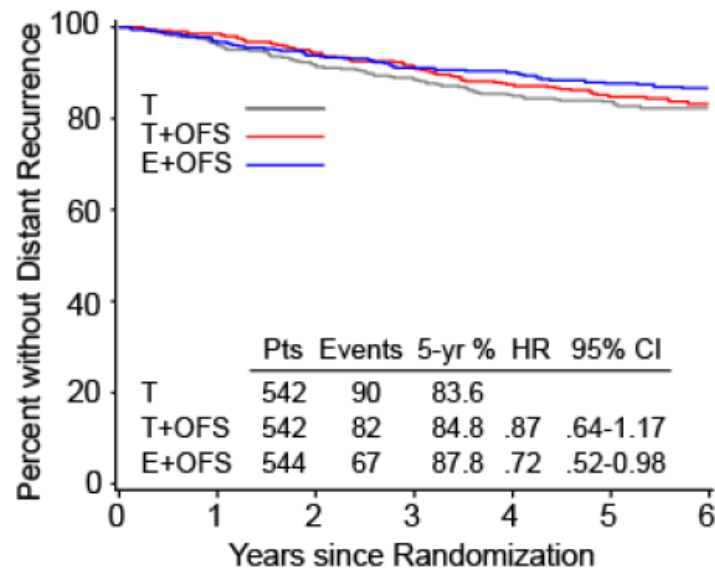
- ➔ 47% des ptes n'ont pas eu de CT :
- ➔ 98,6% de survie sans M+ à 5 ans

# Avec chimio ....

E+OFS 544 512 484 450 386 269 163

544 514 487 455 391 273 166

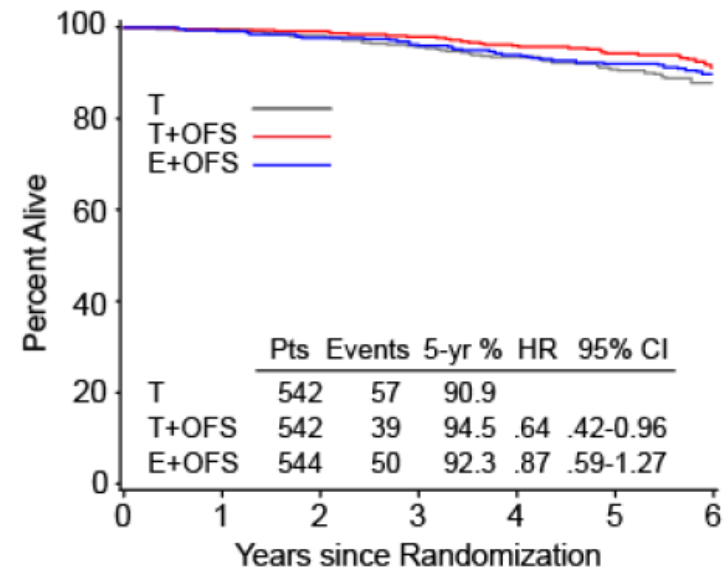
C Distant Recurrence-Free Interval



Number at Risk

T	542	501	466	439	369	274	156
T+OFS	542	519	490	463	386	289	178
E+OFS	544	518	491	463	401	280	172

D Overall Survival



Number at Risk

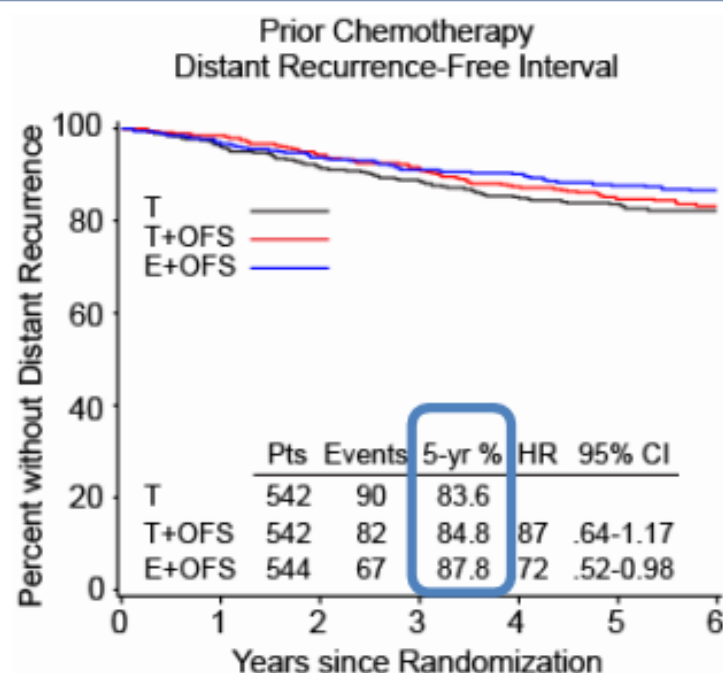
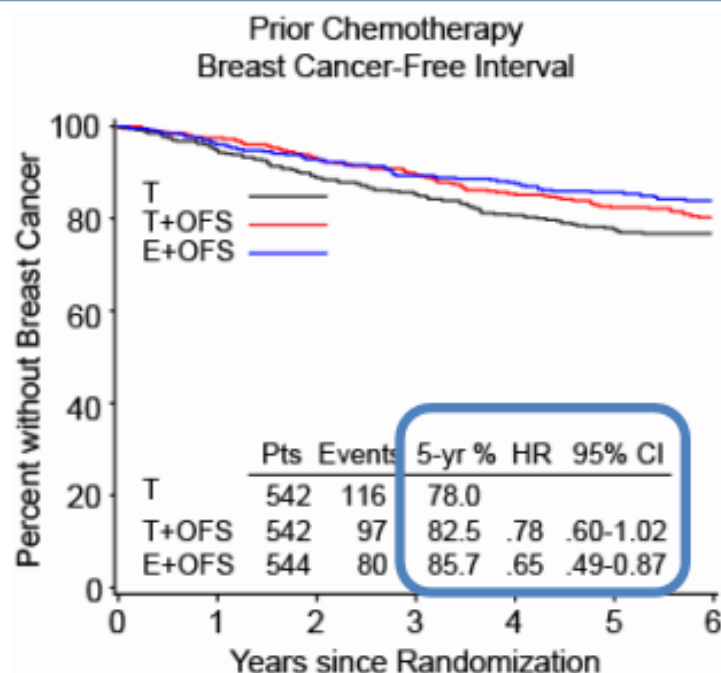
542	532	515	491	422	310	180
542	530	522	504	437	330	205
544	535	521	500	431	306	186



# Les effectifs .....

Characteristic	Chemotherapy Stratum				Overall	
	No Chemotherapy		Prior Chemotherapy			
	All		All			
	N	%	N	%	N	%
<i>N Patients</i>	<i>949</i>	<i>100</i>	<i>1084</i>	<i>100</i>	<i>2033</i>	<i>100</i>
Age at randomization						
<35	14	1.5	219	20.2	233	11.5
35-39	78	8.2	309	28.5	387	19.0
40-49	702	74.0	522	48.2	1224	60.2
50+	155	16.3	34	3.1	189	9.3
Median [IQR]	46	[43-48]	40	[36-44]	43	[38-47]
Hormone receptor status						
ER+ / PgR+	895	94.3	896	82.7	1791	88.1
ER+ / PgR-	28	3.0	131	12.1	159	7.8
ER+ / PgR unknown	15	1.6	20	1.8	35	1.7
ER- / PgR+	11	1.2	35	3.2	46	2.3
Other <sup>1</sup>	-	-	2	0.2	2	0.1
HER2 status						
Negative	880	92.7	844	77.9	1724	84.8

# Premenopausal after Prior Chemotherapy



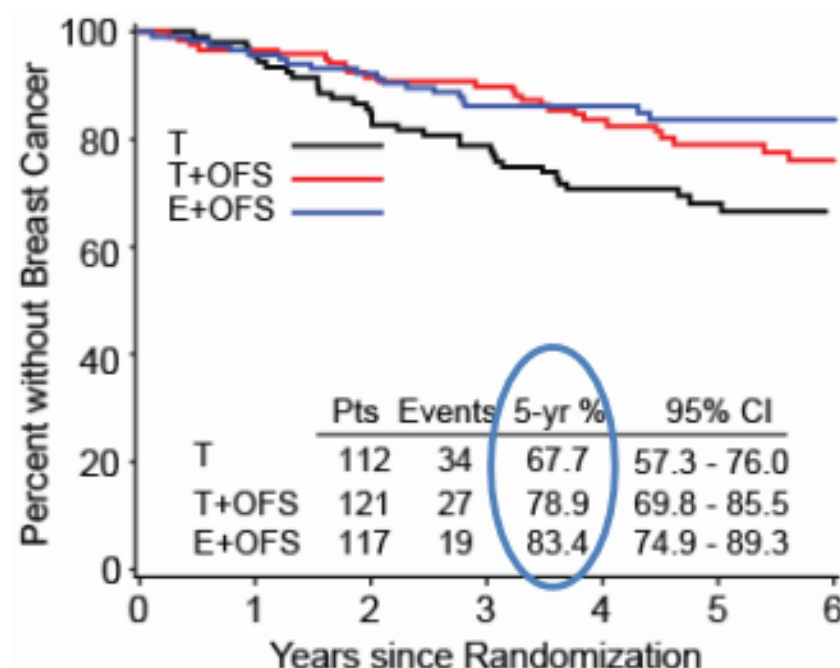
T+OFS v T: Absolute improvement in 5-yr BCFI of 4.5%

E+OFS v T: Absolute improvement in 5-yr BCFI of 7.7% and 5-yr DRFI of 4.2%

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- Une sélection adéquate des patientes de plus mauvais pronostic
- Un bénéfice de la suppression ovarienne en cas de chimiothérapie

## All women < 35 years of age



350 patients (11.5%) under age 35  
94% received chemotherapy in this age group

## Editorial du NEJM ...

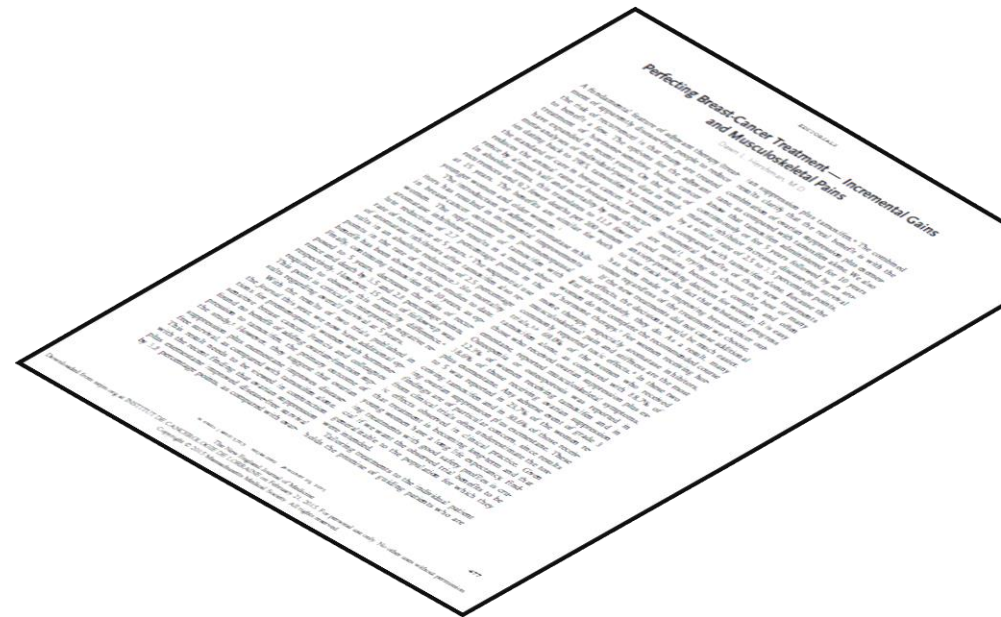
### *Perfecting Breast-Cancer Treatment — Incremental Gains and Musculoskeletal Pains*

Dawn L. Hershman, M.D.

■ Ça veut dire ....

***Que fait on des effets  
Secondaires ???***

***Et pour quel gain ?***





# Un sujet éternel ....

Breast Cancer

DOI 10.1007/s12282-015-0593-z

ORIGINAL ARTICLE

## **A randomized controlled study evaluating safety and efficacy of leuprorelin acetate every-3-months depot for 2 versus 3 or more years with tamoxifen for 5 years as adjuvant treatment in premenopausal patients with endocrine-responsive breast cancer**

Eiichi Shiba · Hiroko Yamashita · Junichi Kurebayashi ·  
Shinzaburo Noguchi · Hirotaka Iwase ·  
Yasuo Ohashi · Kiyofumi Sasai · Tsukasa Fujimoto

Received: 13 November 2014 / Accepted: 26 January 2015



# Référentiels et recommandations

- Référentiel ONCOLOR actualisé décembre 2014
- RECO ASCO juillet 2014 ( axées sur la durée)



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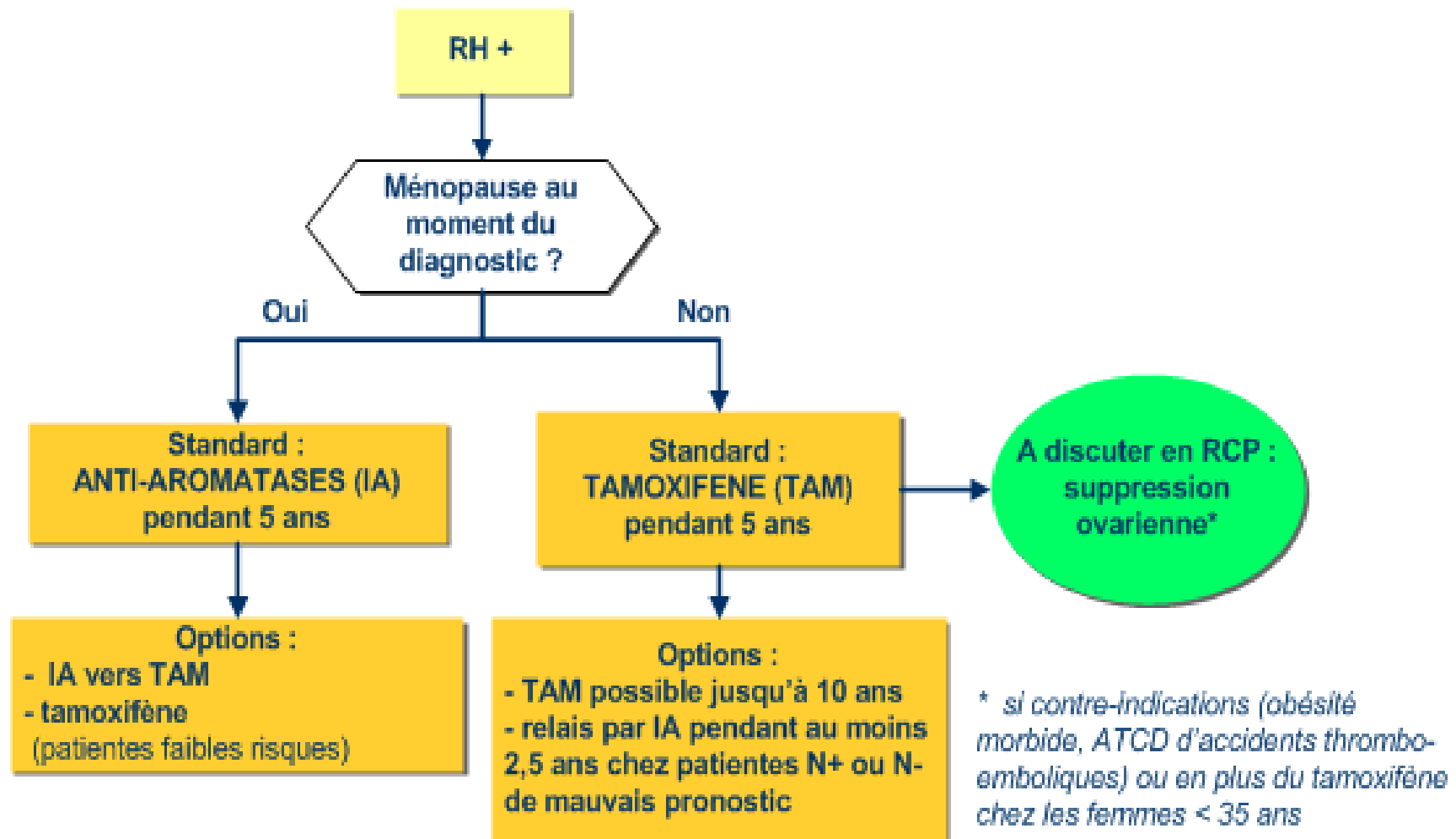
JOURNAL OF CLINICAL ONCOLOGY

ASCO SPECIAL ARTICLE

## Adjuvant Endocrine Therapy for Women With Hormone Receptor–Positive Breast Cancer: American Society of Clinical Oncology Clinical Practice Guideline Focused Update

*Harold J. Burstein, Sarah Temin, Holly Anderson, Thomas A. Buchholz, Nancy E. Davidson, Karen E. Gelmon, Sharon H. Giordano, Clifford A. Hudis, Diana Rowden, Alexander J. Solky, Vered Stearns, Eric P. Winer, and Jennifer J. Griggs*

Harold J. Burstein, Eric P. Winer, Dana-Farber Cancer Institute, Boston, MA; Sarah Temin, American Society of Clinical Oncology, Alexandria, VA; Holly Anderson



**Fausto Petrelli**

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Treviglio, BG, Italia*

*Clinical Breast Cancer* Vol. ■, No. ■, ■-■

### *Which Is the Appropriate Adjuvant Endocrine Therapy for Premenopausal Patients With Breast Cancer?*

#### Introduction

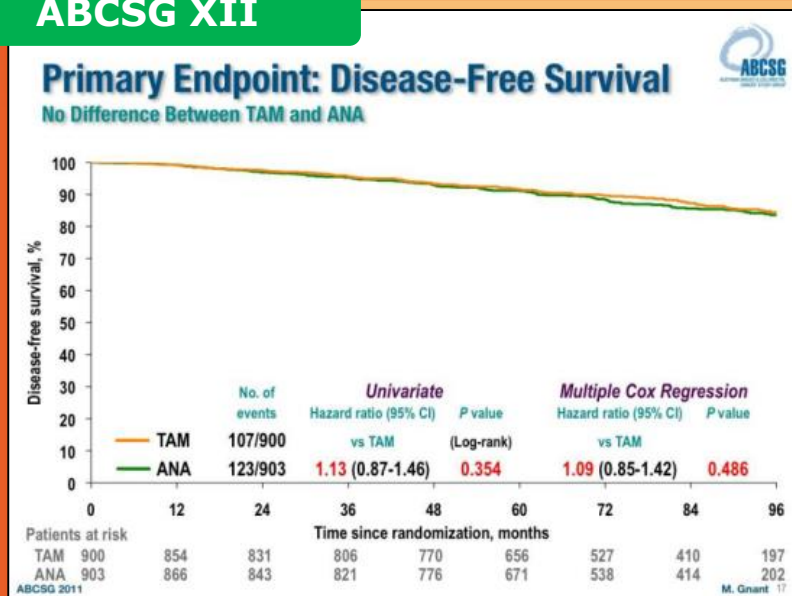
The current guidelines concerning adjuvant hormonal therapy for premenopausal women with estrogen receptor (ER)-positive breast cancer recommend continuing tamoxifen (TAM) for up to a total of 10 years.<sup>1</sup> Several trials have compared  $\geq 5$  years of adjuvant endocrine therapy (10 years of TAM or an aromatase inhibitor after 5 years of TAM) in women with breast cancer. A meta-analysis of these trials showed a reduction in the risk of death and relapse of about 10% and 30% in patients with ER<sup>+</sup>, respectively, although the vast amount of data are from postmenopausal women.<sup>2</sup>

A joint analysis of the Tamoxifen and Exemestane Trial (TEXT) and Suppression of Ovarian Function Trial (SOFT), including 4690 patients, was recently published, reporting data at a median follow-up period of 68 months.<sup>3</sup> The 2 trials compared 5 years of ovarian suppression plus exemestane and 5 years of ovarian suppression plus TAM in premenopausal women with ER<sup>+</sup> breast cancer. The TEXT evaluated 5 years of therapy with exemestane plus a luteinizing hormone releasing hormone (LHRH) versus TAM plus a LHRH (with or without chemo-

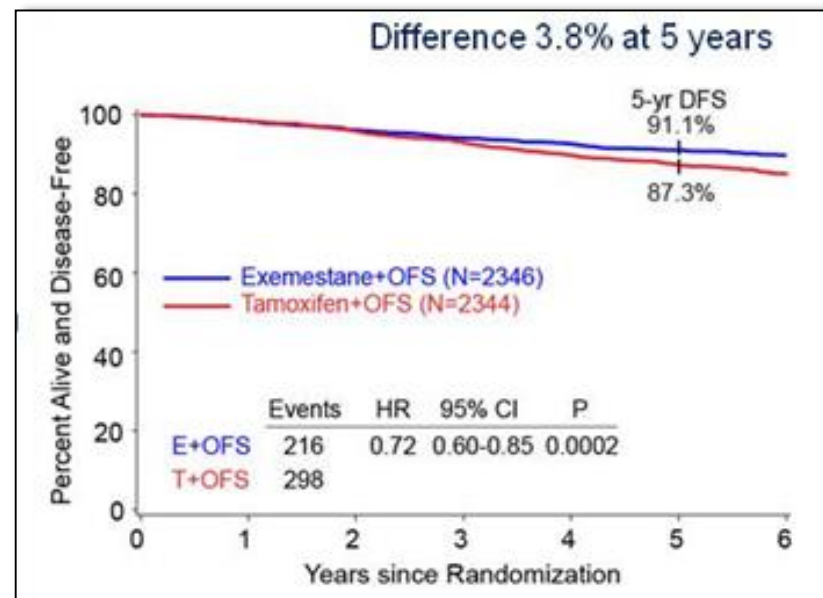
87.3% among those assigned to receive TAM plus ovarian suppression (hazard ratio [HR] for recurrence, second invasive cancer, or death, 0.72;  $P < .001$ ). The overall survival (OS) rate at 5 years was 95.9% among patients assigned to exemestane plus ovarian suppression and 96.9% among those assigned to TAM plus ovarian suppression, with no significant difference. The rates of severe adverse events were similar between the 2 arms. Fractures, musculoskeletal symptoms, vaginal dryness, decreased libido, and dyspareunia were reported more frequently by the patients in the exemestane plus ovarian suppression treatment arm. In contrast, thromboembolic events, hot flashes, sweating, and urinary incontinence were more frequent in patients in the TAM plus ovarian suppression arm. The subgroups in which the benefit of an aromatase inhibitor was greater included patients with node-negative breast cancer and those who had not received chemotherapy. In the SOFT, which included patients who had not become amenorrheic after chemotherapy, the outcome was similar in the 2 arms. The adverse prognostic significance of maintaining a premenopausal state after chemotherapy is well

# Supp ovar. + inh aromatase : des résultats non concordants.

## ABCSG XII



## SOFT-TEXT



... le standard demeure pour la majorité des patientes le  
tamoxifène ...

# Les données de trois essais....

**Table 1.** Key Results From Recent Trials of OFS-Based Combination Endocrine Therapy in Premenopausal Women With Hormone-Responsive Early Breast Cancer

Study (Reference)	Patients	Median Follow-Up	DFS	OS
E-3193 <sup>3</sup>	100% node negative; no chemotherapy permitted (N = 345)	9.9 years	87.9% (tamoxifen) v 89.7% (tamoxifen + OFS); HR, 1.17; 95% CI, 0.64 to 2.12; <i>P</i> = .62	95.2% (tamoxifen) v 97.6% (tamoxifen + OFS); HR, 1.19; 95% CI, 0.53 to 2.65; <i>P</i> = .67
ABCSG-12 <sup>10</sup>	70% node negative; 5% chemotherapy treated (N = 1,803)	62 months	97 events (anastrozole + OFS) v 89 events (tamoxifen + OFS); HR, 1.08; 95% CI, 0.81 to 1.44; <i>P</i> = .591	46 deaths (anastrozole + OFS) v 27 deaths (tamoxifen + OFS); HR, 1.75; 95% CI, 1.08 to 2.83; <i>P</i> = .02
SOFT + TEXT joint analysis <sup>7</sup>	58% node negative; 57% chemotherapy treated (N = 4,690)	68 months	91.1% (exemestane + OFS) v 87.3% (tamoxifen + OFS); HR, 0.72; 95% CI, 0.60 to 0.85; <i>P</i> < .001	95.9% (exemestane + OFS) v 96.9% (tamoxifen + OFS); HR, 1.14; 95% CI, 0.86 to 1.51; <i>P</i> = .37

Abbreviations: ABCSG-12, Austrian Breast and Colorectal Cancer Study Group trial 12; DFS, disease-free survival; E-3193, Eastern Cooperative Oncology Group trial 3193; HR, hazard ratio; OFS, ovarian function suppression; OS, overall survival; SOFT, Suppression of Ovarian Function Trial; TEXT, Tamoxifen and Exemestane Trial.



# Faisabilité ? Acceptation ?

Acta Oncologica, 2012; 51: 247–253

informa  
healthcare

## ORIGINAL ARTICLE

### Eligibility, compliance and persistence of extended adjuvant endocrine therapy for breast cancer

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<sup>1</sup>University Hospital Basel (UHB), Department of Gynecology and Obstetrics, Basel, Switzerland, <sup>2</sup>UHB, Breast Center, Basel, Switzerland, <sup>3</sup>UHB, Department of Oncology, Basel, Switzerland and <sup>4</sup>Cantonal Hospital Winterthur, Department of Gynecology & Obstetrics, Winterthur, Switzerland

#### Abstract

**Background.** Extended therapy (ET) beyond the standard five years of tamoxifen-containing treatment is a widely discussed therapy option in adjuvant endocrine breast cancer (BC) therapy which might offer an opportunity for further protection against late relapses. In this study we evaluated eligibility, compliance and persistence of extended adjuvant endocrine BC therapy. **Patients and methods.** Data concerning all BC patients ( $\leq 75$  years) who initiated endocrine adjuvant therapy between 1999 and 2005 ( $n = 286$ ) was analyzed. **Results.** One hundred and thirty-eight patients were valid candidates for an ET according current guidelines; this represents 48.3% of the individuals who started endocrine therapy five years ago. Of these, 89 (64.5%) received a corresponding offer/recommendation by their treating physicians. Advanced age ( $p = 0.002$ ), favorable disease stage ( $p = 0.011$ ), and follow-up at a general practitioner ( $p < 0.001$ ) were significant factors where a recommendation for an ET was not made. Of the 89 patients who were offered an ET, 64 followed this proposal (compliance: 84.7%). Eighteen patients (28.1%) were non-persistent to the ET; therapy-related adverse effects were the main reason for discontinuation. Sixteen patients received an ET beyond current guidelines (tamoxifen or an aromatase inhibitor alone was given longer than five years); this represents 11.0% of all patients who completed five years of endocrine therapy. **Conclusions.** Only a minority of the patients who started an endocrine therapy were actually eligible for an ET. Patients who were offered/recommended an ET had a high rate of compliance and persistence. Efforts should be made to make sure that all physicians, above all general practitioners, who are involved in the treatment of BC patients, are provided with current therapy guidelines as to guarantee an optimal patient management.

For three decades, a five-year treatment has been the standard adjuvant endocrine therapy for women with hormone receptor (HR)-positive breast cancer (BC). More recently, a further strategy has been established with an extended therapy beyond the standard five years of tamoxifen-containing adjuvant therapy, which offers an opportunity for further protection against late relapses [1–4].

When endocrine therapy is continued beyond the established duration of five years, the American Society of Clinical Oncology (ASCO) clinical practice guideline recommends that women who receive extended adjuvant therapy should have a total of 8–10 years of endocrine treatment, five years of tamoxifen followed by three to five years of an aromatase inhibitor (AI); across all strategies, the recommended limit on AI treatment is five years total [5].

During the past few years, the topic area of “compliance/adherence/persistence to adjuvant endocrine treatment” has increasingly become a focus of interest [6,7]. However, the studies which evaluated this topic analyzed the course of endocrine therapy as a whole and did not consider the special situation of an extended therapy.

This clinical practice study evaluates, to the best of our knowledge for the first time, the following items:

- 1) How many BC patients who initiated an endocrine adjuvant therapy are actually eligible for an extended therapy?
- 2) To what extent current therapy options have been implemented by treating physicians: how many of the patients who were eligible for an extended approach received such a recommendation and who proposed it?

The Breast Journal

## LETTER TO THE EDITOR

### Self-management Strategies Adopted by Breast Cancer Survivors to Improve their Adherence to Tamoxifen

#### To the Editor:

With increasing use of oral anticancer agents, concerns about adherence to prescribed regimens become an important issue in oncology [1]. Adjuvant tamoxifen treatment, which is delivered to women with breast cancer after surgery, chemotherapy and radiotherapy, is a good example. Rates of adherence to tamoxifen have been found to range from 45% to 100%, with adherence gradually decreasing with each passing year in the course of 5 years and most of discontinuations occurring during the first year of follow-up [2]. Previous studies have focused mainly on the factors contributing to nonadherence to the treatment. Discontinuation of the treatment was found, for example, to be associated with extremes of age, negative or neutral beliefs about the value of the treatment, and experiencing burdensome side-effects [1,3,4]. The aim of the present qualitative patient-focused study was to document how women deal with their drug-taking on a daily basis, and what self-management strategies they adopt to improve their adherence to the treatment in the long run. As far as we know, this issue has not been investigated so far.

In-depth interviews ( $N = 34$ ), 40–60 minutes length, were conducted with women recruited consecutively from the consultations at two regional cancer centers, defined as primary breast cancer patients to whom tamoxifen had been prescribed (average age: 49 range: 35–64). At the time of the interview, 28 women were taking tamoxifen, 2 had discontinued the treatment, and 4 had refused it. The interview covered: onset and history of the disease; women's experience of previous treatments; side-effects experienced; relationships with the clinic and/or staff; women's understanding and expectations of the treatment; their views about their future health; and their medication practices, with

special emphasis on the self-management strategies adopted to remind themselves to take their daily tamoxifen. The interviews were audiotaped and transcribed verbatim. Analysis was based on the constant comparative method. Initial coding frame was generated from the text, and all themes were subsequently examined in the context of each woman's interview, as well as across the whole data set.

Self-management strategies for not forgetting to take the drug were analyzed. Women described how they tried to integrate the treatment into their everyday lives, so that they would take their tablets routinely. This goal was achieved by associating them with a daily activity, or with other daily medications, or by keeping the tablets in specific places. Those who were already taking other medication tended to associate their tamoxifen tablets with their other daily drugs. This finding confirms previous reports that women taking multiple drugs apply their prescriptions more regularly than those taking only tamoxifen tablets [5]. The present results also indicate that the routines women adopted with tamoxifen were based upon those previously set up with other “hormonal” treatments, such as oral contraceptives or hormonal replacement therapy. Previous use of the contraceptive pill or hormone replacement therapy therefore tends to improve adherence to tamoxifen. When tamoxifen was their sole medication, the self-management strategies adopted to prevent women from forgetting to take their daily tablet resulted in integrating it into their everyday lives like an ordinary thing, ingesting them just like ordinary food, and keeping the tablets in a specific place just like other everyday goods. This process of appropriation made it possible for women to avoid thinking about their cancer every time they took their tamoxifen. Therefore, with tamoxifen as with other long-term treatments [6], integrating the drug-taking habit into patients' everyday life promotes long-term adherence.

The places where medicines are kept correspond to various modes of perception of these drug-objects and to the importance attached to them [7]. Keeping tamoxifen

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The Breast Journal, 2012, 3–3

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## Understanding discontinuation of oral adjuvant endocrine therapy by women with hormone receptor-positive invasive breast cancer nearly 4 years from diagnosis

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Max Schwarz, MB, BS, FRACP, FACP, FChPM,<sup>2</sup> and Susan R. Davis, MB, BS, PhD, FRACP<sup>1</sup>

### Abstract

**Objective:** The aim of this study was to investigate the extent of discontinuation of oral adjuvant endocrine therapy (OAET) in women nearly 4 years from the diagnosis of their first episode of invasive breast cancer and the reasons for such discontinuation.

**Methods:** We used a large, prospective cohort study of women who had been diagnosed with their first episode of invasive breast cancer between 2004 and 2006, recruited through a state-based cancer registry. All participants completed an enrollment questionnaire (EQ) within 12 months of diagnosis and annual follow-up questionnaires (FQs) thereafter. The data in this report were obtained from the EQ and the first three FQs.

**Results:** A total of 1,370 women with hormone receptor-positive disease completed the EQ. At the completion of the third FQ nearly 4 years from diagnosis, 1,193 women remained in the study. Use of OAET peaked by 2 years postdiagnosis. At nearly 4 years from diagnosis, 18% of the 1,193 women remaining in the study were not taking OAET. Of these women, just more than half had ceased therapy mainly owing to a range of adverse effects, predominantly estrogen deficiency symptoms, but the remainder (8% of women remaining in the study) had never used OAET.

**Conclusions:** Our study confirms that early discontinuation of OAET due to estrogen deficiency symptoms remains an important issue despite calls for strategies to address this problem. The number of women potentially suitable for OAET but not receiving it was almost as great as the number of those who have discontinued therapy.

**Key Words:** Breast cancer – Oral adjuvant endocrine – Persistence.

The effectiveness of oral adjuvant endocrine therapy (OAET) in reducing recurrence risk and improving survival in women with hormone receptor (HR)-positive breast cancer is beyond dispute,<sup>1,2</sup> with 5 years considered as

the minimum for either adjuvant tamoxifen or aromatase inhibitors.<sup>1,2</sup> However, an emergent issue concerns discontinuation and poor compliance at the cost of increased mortality. Premature discontinuation of OAET has been reported as being on the order of 30% to 50%.<sup>3,4</sup>

The reported extent of early discontinuation in different studies is thought to be dependent on a range of parameters, including whether the patients are participating in a clinical trial, the period since the commencement of treatment, and the methods used to assess medication use.<sup>4</sup> Factors that may improve adherence include access to health care, patient education, improved patient-physician communication, and management of adverse treatment effects.<sup>4</sup> However, an in-depth understanding of the profile of women who discontinue OAET and the reasons for discontinuation is needed before a strategy for improving compliance can be developed.<sup>5</sup>

The British United Provident Association Health Foundation (BUPA Study) is a large, prospective, Australian cohort study of women with invasive breast cancer. The study has been described in detail elsewhere, and the women in the study are known to be representative of women with this disease.<sup>6</sup> The BUPA Study relies on the completion of annual questionnaires by participants to document treatment, including the use

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original articles

Annals of Oncology

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## Adjuvant endocrine therapy with tamoxifen in young women with breast cancer: determinants of interruptions vary over time

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**Background:** In premenopausal women with hormone receptor-positive breast cancer (BC), 5 years of tamoxifen is recommended. Little is known about reasons for interruption in this population. The aim was to estimate the incidence of tamoxifen interruption and its correlates among younger women.

**Patients and methods:** Using a prospective cohort, Elopée 40 of women with BC aged ≤40 diagnosed between 2005 and 2008, we studied 196 women. Tamoxifen interruption was defined as two or more consecutive months without dispensed prescription of tamoxifen, based on pharmacy refill database. Two periods were studied: between tamoxifen initiation and 16 months after BC diagnosis, and between 16 and 28 months.

**Results:** Among women treated with tamoxifen, 42% interrupted within the first 2 years of treatment. During the first period, treatment interruptions were associated with a lack of understandable information about endocrine treatment and insufficient social support. During the second period, another set of factors were associated with interruption: treatment side-effects, no longer fearing cancer relapse, lack of social support, no opportunity to ask questions at the time of diagnosis, and fewer treatment modalities.

**Conclusions:** Improving information and patient-provider relationship might prevent interruption. Particular attention should be paid to women with little social support.

**Key words:** adjuvant endocrine therapy, breast neoplasm, persistence, prospective cohort study, young

### Introduction

Breast cancer (BC) is the most frequently diagnosed cancer in women in Western countries. During the last decade, the mortality rate from BC has declined, largely as a result of more widespread application of chemotherapy and adjuvant endocrine therapy (AET) [1]. The latter has been shown to improve overall and relapse-free survival in women with hormone receptor-positive BC [2]. In those who are premenopausal at the time of BC diagnosis, the recommended adjuvant therapy is 5 years of tamoxifen [3]. As with any therapy, high adherence to treatment (i.e. respecting the prescription in terms of timing, dosage, and frequency [4]) and persistence (continuation of treatment of the prescribed length of time [4]) are needed to obtain an optimal clinical outcome. The survival benefit from tamoxifen increases with increased treatment duration [5],

and a cohort study has shown that women who interrupted tamoxifen before the completion of 5 years had increased risk of death [6]. However, despite great variability in methods used, reported rates of nonpersistence are consistently high, varying from 19% to 33% at 3 years [7-9] after treatment initiation and reaching 50% at 5 years [6, 9]. Most data available regarding persistence to AET are from studies including only older women with BC [10, 11]. Although some studies have shown that younger women with BC are at higher risk of AET interruption [7, 12], little is known about the reasons for interruption in this population.

The aim of this prospective study, combining patient interviews, medical questionnaires, and AET prescription refill data, was to estimate the incidence of first AET interruption and its determinants in a French representative sample of women with BC, aged ≤40.

### Materials and methods

#### data source

The cohort Elopée 40 was implemented in Southeastern France to document consequences of BC and its treatments on women's daily and

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# CAS CLINIQUES ...

## ■ CAS UN :

- **34 ans**, deux enfants de 4 et 6 ans, souhaite autre grossesse
- 1m68 58 kilos SG 85 B
- Mère décédée il y a un an d'un cancer du sein, grand-mère Cancer du sein
- Nodule QSE gauche de l'ordre du cm
- Microbiopsie : CCI grade I, RH+++, HER2 – Ki 67 17%
- MP GS CURAGE gauche : CCI grade I 0,8x0,9cm N+( 3/16)

## Questions :

- Chimio ?
- Chimio et analogues?
- Analogues et TAM? Sans chimio ?
- Analogues et AI ? Sans chimio ?
- ***Si chimio , quelle hormono ensuite ?***



# Cas deux ....

- **39 ans**, un enfant, pas de désir de grossesse
- 66 kilos 1m66 90 D
- Autopalpation nodule QII droit de 2, 5 cm
- CCI grade III, RH+++, HER2- pas de Ki 67
- Cytoponction axillaire +
- 16 01 2008 : MP CURAGE : CCI grade III Pt 2,5 cm  
, CCIS en périphérie, marges non saines, **N+ 29/38**  
**RH +++ HER2 – Ki 67 45 % embols**

## **Questions**

- *Chimio ? Blocage ovarien ?*
- *Hormono ? Laquelle ? Combien de temps ?*