



# FATTORI DECISIONALI PER L'IRRADIAZIONE LINFONODALE (1-3 N+)

**Alfio Di Grazia**

**(Pergolizzi ha la febbre)**



**ZOOM JOURNAL CLUB 2012**  
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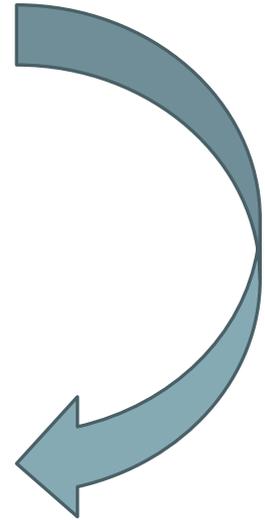
# LE DUE IPOTESI



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➤ **Fisher**





## CLINICAL INVESTIGATION

### RISK FACTORS FOR REGIONAL NODAL RELAPSE IN BREAST CANCER PATIENTS WITH ONE TO THREE POSITIVE AXILLARY NODES

LUCY YATES, M.B.B.S.,\* ANNA KIRBY, PH.D.,\*<sup>†</sup> SIOBHAN CRICHTON, M.Sc.,<sup>‡</sup> CHERYL GILLETT, PH.D.,<sup>§</sup>  
PAUL CANE, PH.D.,<sup>¶</sup> IAN FENTIMAN, M.D.,\* AND ELINOR SAWYER, PH.D.\*

No. LNs		Grade		
		1	2	3
1	5 y	1.4	4.9	6.5
	10 y	1.4	8.9	8.9
2	5 y	0	7.6	12.1
	10 y	0	11.8	19.4
3	5 y	0	10.9	21.1
	10 y	0	14.8	29.6

	G1	G2	G3
1 N	Low	Int	Int
2 N	Low	Int	High
3 N	Low	High	High

Table 4b. 5- and 10-year SCFR rate and hazard ratios according to the three risk\* groups

Risk Group	Number (%)	5-y SCFR (%)	10-y SCFR (%)	HR (95% CI)	p Value
Low	131 (14)	0.8	0.8	1.0	<0.001
Intermediate	580 (60)	6.0	9.6	13.5 (1.9–97.9)	
High	252 (26)	14.6	21.0	30.3 (4.2–220.3)	

## Criticità:

- ⊙ Studio retrospettivo
- ⊙ Periodo di arruolamento troppo lungo
- ⊙ Chemioterapia adiuvante (CMF 37%)
- ⊙ OT solo 6% prima del 1985 vs 79% dopo il 1985
- ⊙ Tasso di recidiva tende a diminuire nel tempo

## Postoperative periclavicular radiotherapy in breast cancer patients with 1–3 positive axillary lymph nodes

### Outcome and morbidity

**Tab. 2** Sites of failure for patients with (*PCLNI*) or without periclavicular lymph node irradiation (*noPCLNI*)

Site of relapse	noPCLNI (n = 168) (n, %)	PCLNI (n = 67) (n, %)	p value
Local	15 (8.9)	7 (10.4)	0.718
Contralateral	8 (4.8)	1 (1.5)	0.238
Axillary	6 (3.6)	3 (4.5)	0.744
Periclavicular	2 (1.2)	2 (3.0)	0.337
Distant	29 (17.3)	12 (17.9)	0.906

## Criticità:

- ① Studio retrospettivo
- ① 1+ criterio di esclusione a RTSC
- ① ECE

## Elementi di interesse:

- ① Tossicità trascurabile

# ORIGINAL ARTICLE



Evaluating the efficacy of current clinical practice of adjuvant chemotherapy in postmenopausal women with early-stage, estrogen or progesterone receptor positive, one to three positive axillary lymph nodes



Breast surgery	12				
Breast-conserving	16				
Mastectomy					
Unknown					
Radiotherapy	9				
Endocrine therapy	13				
Tamoxifen	7 (85.6)	81 (56.6)	64 (43.5)	<0.0001	<0.0001
AIS + tamoxifen	9 (7.2)	51 (35.7)	25 (17)		
AIS	9 (7.2)	11 (7.7)	58 (39.5)		
Adjuvant chemotherapy <sup>b</sup> [n (%)]	44 (28.2)	103 (64)	111 (64.9)	<0.0001	0.85
Non-anthracycline-based	32 (72.7)	30 (29.1)	24 (21.6)	<.0001	<.0001
Anthracycline-based	8 (18.2)	66 (64.1)	51 (46)		
Combination taxane–anthracycline	2 (4.5)	4 (3.9)	32 (28.8)		
Unknown	2 (4.5)	3 (2.9)	4 (3.6)		

# Fattori di rischio per recidiva locoregionale

# Post mastectomy radiotherapy in one to three lymph node positive breast cancer

ANUSHEEL MUNSHI<sup>1</sup>, ARUNA PRABHU<sup>2</sup> & IAN KUNKLER<sup>3</sup>

<sup>1</sup>Department of Radiation Oncology, Tata Memorial Hospital, Parel, Mumbai, India, <sup>2</sup>Department of Surgical Oncology, Tata Memorial Hospital, Parel, Mumbai, India, <sup>3</sup>Department of Clinical Oncology, Edinburgh Cancer Centre, University of Edinburgh

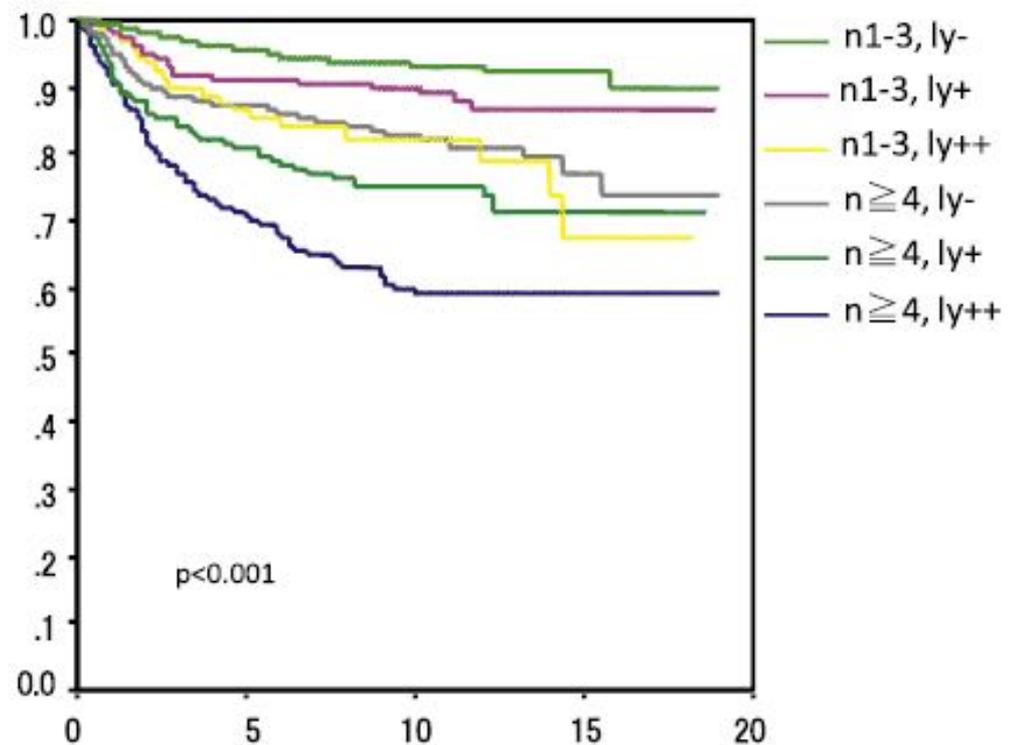
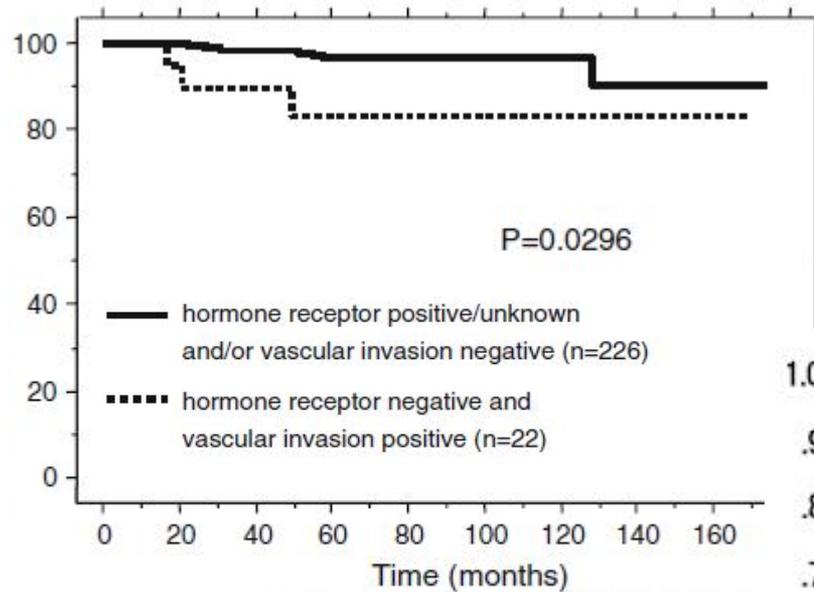
**Do any risk factors predict benefit from local radiotherapy in patients with one to three nodes?**

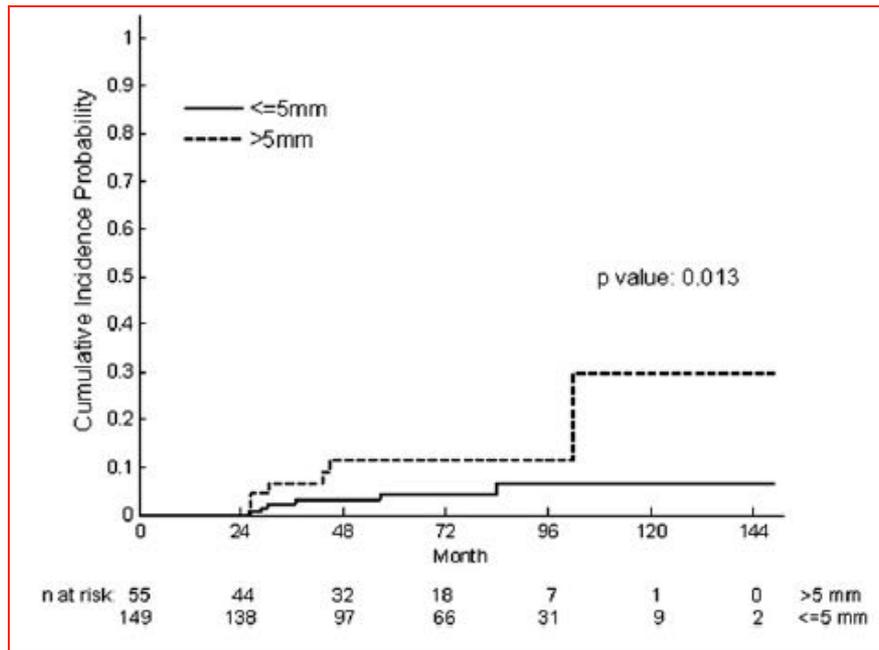
Autori	Fattori di rischio
Ragaz, JNCI 2005.	Age, >25 % N+, ER-.
Shang, IJROBP 2010.	G, ER-, LVI, No RT.
Truong, IJROBP 2007.	NR>0.2,
Kyndi, RO 2009.	N+, T, G, ER-

# Recettori-

+

# Invasione linfovaskolare



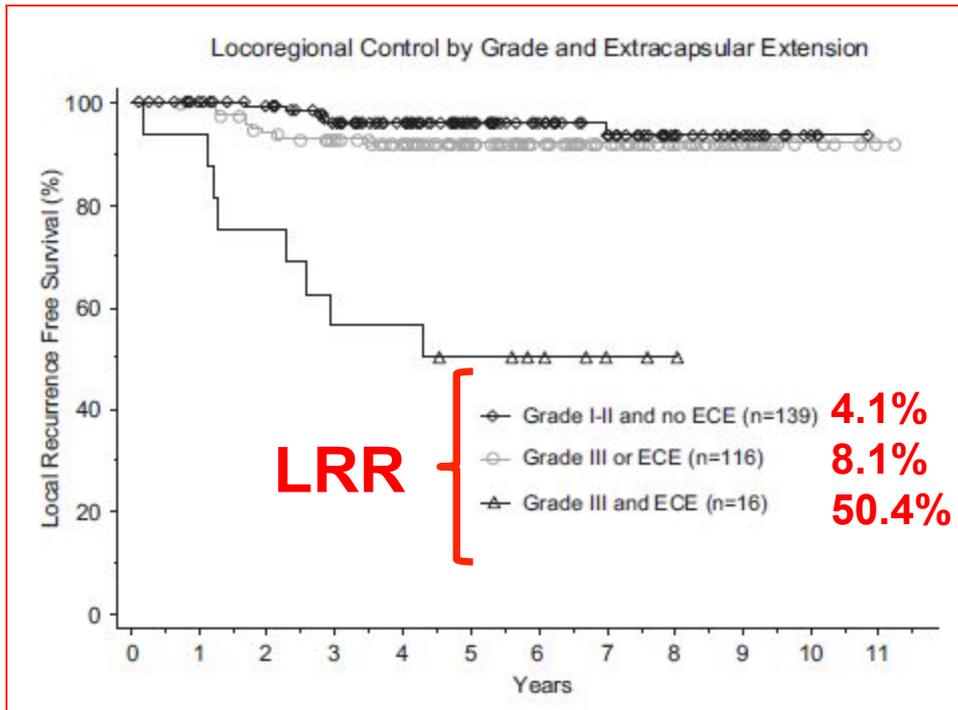


>10 mm **16%**

Potenziamento delle  
anatomie patologiche

Criticità:

- ⊙ Studio retrospettivo
- ⊙ Follow-up 5 anni e piccolo numero di pazienti



Potenziamento delle  
anatomie patologiche

**Table 2** Univariate Cox proportional hazard regression analysis for locoregional recurrences in patients who did not receive radiation therapy ( $n = 271$ )

Variable	Hazard ratio (95% CI)	<i>P</i> value
Age (y)		
<50	0.80 (0.33-1.94)	.62
≥50		
ER/PR status		
Both negative	2.60 (1.10-6.12)	<b>.03</b>
Either positive		
Lymphovascular invasion		
Present	2.36 (1.033-5.37)	<b>.04</b>
Absent		
Number of positive lymph nodes		
2-3	2.59 (1.12-5.99)	<b>.03</b>
1		



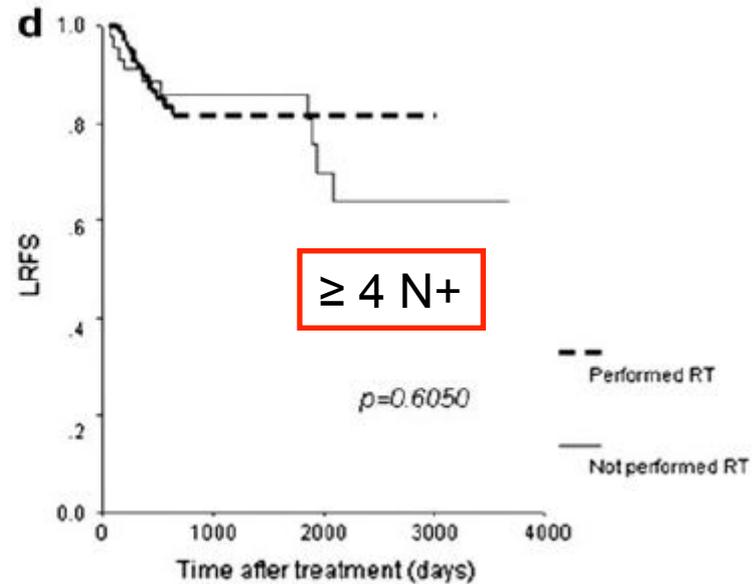
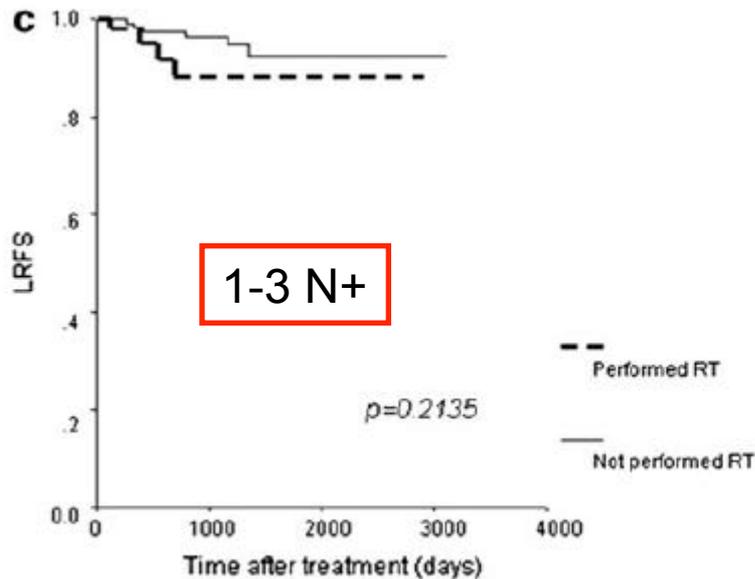
0-1 risk factor → LRR 3.4%  
 ≥ 2 risk factors → LRR 14.6%

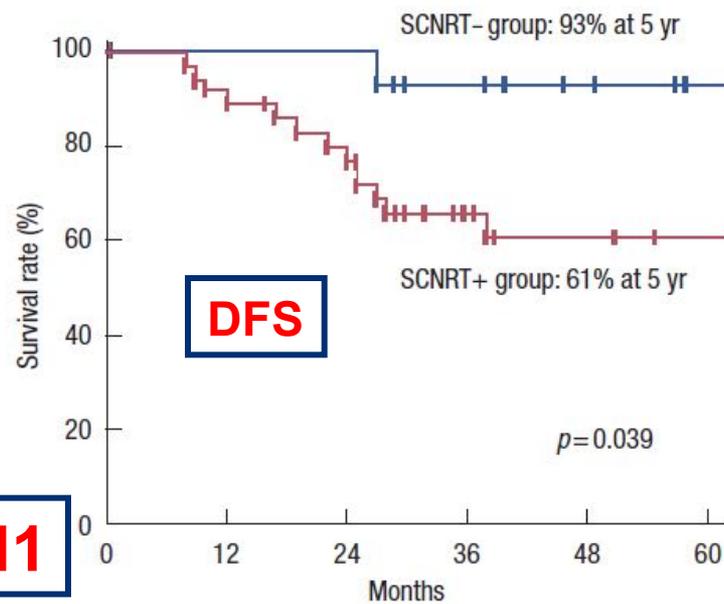
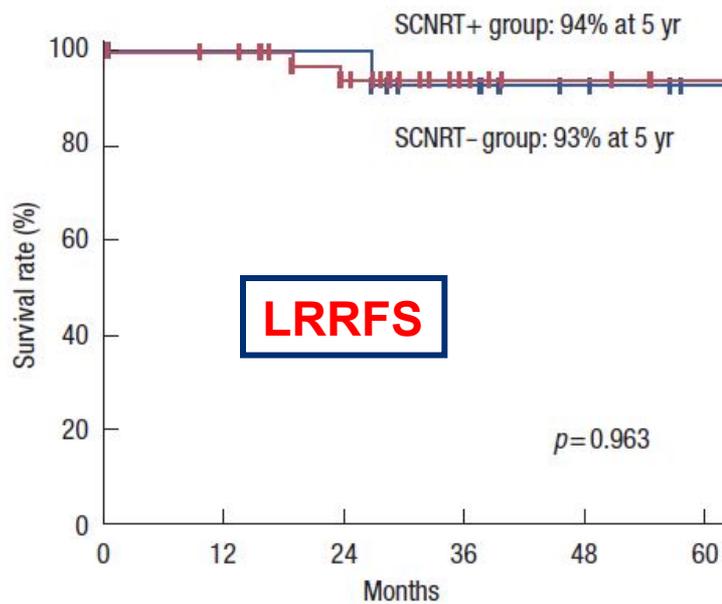
Extracapsular extension		
Present	3.72 (1.63-8.48)	<b>.002</b>
Absent		
Microscopic vs absent	4.21 (1.60-11.09)	<b>.004</b>
Gross vs absent	3.16 (1.03-9.70)	<b>.04</b>
Tumor size (cm)		
>2	1.92 (0.83-4.44)	.13
≤2		
Bloom-Richardson grade		
3	3.14 (1.33-7.41)	<b>.009</b>
1-2		
Surgical margin		
Negative	1.08 (0.25-4.62)	.92
Positive/close		
Menopause		
Pre/peri	1.05 (0.45-2.46)	.91
Post		
Percent of positive lymph nodes		
>25%	2.73 (1.16-6.46)	<b>.02</b>
≤25%		

*Abbreviations:* CI = confidence interval; ER = estrogen receptor; PR = progesterone receptor.  
 Values in bold are statistically significant.

# Locoregional recurrence risk factors and the impact of postmastectomy radiotherapy on patients with tumors 5 cm or larger

Tomoya Nagao · Takayuki Kinoshita ·  
Nobuko Tamura · Takashi Hojo · Madoka Morota ·  
Yoshikazu Kagami





Criticità:

🎯 peggiore DFS dopo NAC perché T3-T4

**Il dato 1-3 vs >3 E' ARBITRARIO!!!!  
Proviene dal vecchio studio di Fisher  
con chemioterapia non adeguata!!**

**I “chemioterapisti” si pongono il  
problema del numero di linfonodi  
positivi? NO, non gliene frega nulla!!!!**

**Molti dati provengono da studi retrospettivi su RT postmastectomia e sulle conoscenze dei dati di recidiva loco regionale dopo terapia conservativa e dissezione ascellare**

**L'MA20 ci potrà dire qualcosa sulla chirurgia conservativa (lo studio è chiuso ma i risultati ancora non sono riportati)**

# CAN-NCIC-MA20 – Clinical Trials Group Phase III Randomised Study

	WBI	WBI + RNI	HR	p
<b>Loco-regional relapse</b>	48	29		
<b>At 5 years isolated LR DFS</b>	94.5%	96.8%	0.59	0.02
<b>Distant metastases</b>	116	77		
<b>At 5 years distant DFS</b>	87%	92.4%	0.64	0.002
<b>Total relapse</b>	144	102		
<b>At 5 years DFS</b>	84%	89.7%	0.68	0.003
<b>Deaths</b>	96	74		
<b>At 5 years overall survival</b>	90.7%	92.3%	0.76	0.07

**Per i risultati riguardanti il controllo loco regionale e l'impatto sulla sopravvivenza della RT infra-sopraclaveare con 1-3 N+ **BISOGNA AVERE PAZIENZA** poiché si possono valutare solo a 10-15 anni di follow-up.**

**E' prudente** prendere in considerazione RT su apice ascella sovraclaveare in caso di più fattori prognostici negativi: T grosso, Triple negative, N con ECE, Nodal ratio, G3, età?, invasione linfovaskolare, etc. vista anche la ormai forte evidenza di scarsa-nulla tossicità significativa dopo RT.

