

Paula Régia M. Soares

31 MAIO
A 2 JUN
2018

XIX CONGRESSO SUL-BRASILEIRO
DE GINECOLOGIA E OBSTETRÍCIA
IV JORNADA SUL-BRASILEIRA
DE MASTOLOGIA



- Médica formada pela Universidade de Mogi das Cruzes- SP
- Residência de Clínica Medica no H. Santa Marcelina- SP
- Residência de Radioterapia no AC Camargo Câncer Center – SP
- Médica do Corpo Clínico do Instituto de Oncologia do Paraná - PR

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Radioterapia- Oncoville

Curitiba- PR

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Radioterapia pós Mastectomia : *Quando não indicar*

Declaração de Conflito de Interesses

- Sem Conflito de Interesses

Radioterapia pós- Mastectomia: Quando não Indicar

- *T1- 2 com 1 à 3 LN +*
- *DCIS e Margens Positivas*
- *Síndromes e Mutações*

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✧ *Há indicação de PMRT em pacientes*

Estádios T1-2 com 1 a 3 LN comprometidos ?

Postmastectomy Radiotherapy: An American Society of Clinical Oncology, American Society for Radiation Oncology, and Society of Surgical Oncology Focused Guideline Update

- *1- Há indicação de PMRT em pacientes Estádios T1-2 com 1 a 3 LN comprometidos ?*

O consenso do painel foi indicar , porém ressalta a necessidade de *individualizar algumas pacientes* , cujo benefício seria limitado e elas estariam expostas à potencial toxicidade da PMRT.

*Recht, A., Comen E.A., Fine , R. E et al
Ann Surg Oncol (2016)*

Present-Day Locoregional Control in Patients with T1 or T2 Breast Cancer with 0 and 1 to 3 Positive Lymph Nodes After Mastectomy Without Radiotherapy

[Ranjna Sharma, MD,¹](#) [Isabelle Bedrosian, MD,¹](#) [Anthony Lucci, MD,¹](#) [Rosa F. Hwang, MD,¹](#) [Loren L. Rourke, MD,¹](#) [Wei Qiao, MS,²](#) [Thomas A. Buchholz, MD,³](#) [Steven J. Kronowitz, MD,⁴](#) [Savitri Krishnamurthy, MD,⁵](#) [Gildy V. Babiera, MD,¹](#) [Ana M. Gonzalez-Angulo, MD,⁶](#) [Funda Meric-Bernstam, MD,¹](#) [Elizabeth A. Mittendorf, MD,¹](#) [Kelly K. Hunt, MD,¹](#) and [Henry M. Kuerer, MD, PhD, FACS¹](#)

MDACC – pacientes tratados de 1997 à 2002 – 1019 pacientes



T1 e T2 com 0 à 3 LN +



Follow-up – 7 anos



Avaliar RLR

Characteristic

Age (years)

≤40	113 (11.1)
41-50	273 (26.8)
51-60	291 (28.6)
61-70	204 (20)
>70	138 (13.5)

Race and/or ethnicity

Non-Hispanic white	809 (79.3)
Hispanic white	94 (9.2)
Black	68 (6.7)
Asian/Pacific Islander	35 (3.4)
Other	14 (1.4)

Tumor classification

T1a	173 (17)
T1b	186 (18.3)
T1c	444 (43.5)
T2	216 (21.2)

No. of positive nodes

0	753 (73.8)
1	176 (17.3)
2	69 (6.8)
3	21 (2.1)

Nodal metastases, largest recorded size

≤1 cm	202 (75.6)
> 1 cm	41 (15.4)
Not recorded	23 (9.0)

Extranodal extension

None	225 (84.6)
<2 mm	30 (11.3)
≥2 mm	11 (4.1)

Stage

I	613 (60.1)
IIA	329 (32.4)
IIB (T2N1)	77 (7.5)

Estrogen receptor status

Negative	212 (22.3)
Positive	733 (77.1)
Not tested	74 (7.3)

TABLE 2 Five- and 10-year locoregional recurrence (LRR) rates with regard to patient, pathologic, and treatment-related factors

Factor	No LRR, <i>n</i> (%)	LRR, <i>n</i> (%)	5-year LRR rate (%)	10-year LRR rate (%)	<i>P</i> value
Overall	997 (97.7)	23 (2.3)	1.6	2.7	–
Age (years)					
≤40	102 (10.2)	11 (47.8)	5.5	11.3	
41–50	266 (26.7)	7 (30.4)	1.5	3.0	
51–60	288 (29.0)	3 (13.0)	1.1	1.1	
61–70	203 (20.4)	1 (4.3)	0.6	0.6	
>70	137 (13.7)	1 (4.3)	0.9	0.9	<0.0001
Tumor classification					
T1	790 (79.2)	14 (60.9)	1.0	2.1	
T2	206 (20.8)	9 (39.1)	3.7	5.1	0.02
No. of positive nodes					
0	739 (74.3)	13 (56.5)	1.1	2.1	
1	171 (17.2)	5 (21.7)	2.5	3.3	
2	64 (6.4)	5 (21.7)	4.5	7.9	
3	21 (2.1)	0 (0)	0.0	0	0.02
Nodal status					
N0	739 (74.3)	13 (56.5)	1.1	2.1	
N1	256 (25.7)	10 (43.5)	2.9	4.3	0.05

TABLE 2 Five- and 10-year locoregional recurrence (LRR) rates with regard to patient, pathologic, and treatment-related factors

Factor	No LRR, <i>n</i> (%)	LRR, <i>n</i> (%)	5-year LRR rate (%)	10-year LRR rate (%)	<i>P</i> value
Extranodal extension					
None	204 (83.9)	21 (91.3)	1.5	2.6	
<2 mm	29 (11.9)	1 (4.3)	0.0	3.6	
≥2 mm	10 (4.1)	1 (4.3)	10.0	10	0.33
Stage					
I	603 (60.5)	10 (43.5)	0.8	2.0	
IIA	322 (32.4)	7 (30.4)	2.0	2.4	
IIB (T2, N1)	71 (7.1)	6 (26.1)	5.8	9.7	0.001
Estrogen receptor status ^b					
Negative	204 (22)	8 (40)	2.6	5.0	
Positive	721 (78)	12 (60)	1.2	1.9	0.03
HER2 status ^c					
Negative	461 (71.6)	6 (50)	0.9	1.5	
Positive	183 (28.4)	6 (50)	2.3	4.1	0.1
Lymphovascular invasion					
None	863 (86.7)	20 (87)	1.7	2.7	
Present	133 (13.3)	3 (13)	0.8	2.8	0.996
Grade ^d					
1	56 (5.7)	0 (0)	0.0	0.0	
2	486 (49.5)	8 (36.4)	1.1	1.9	
3	439 (44.8)	14 (63.6)	2.4	3.6	0.14

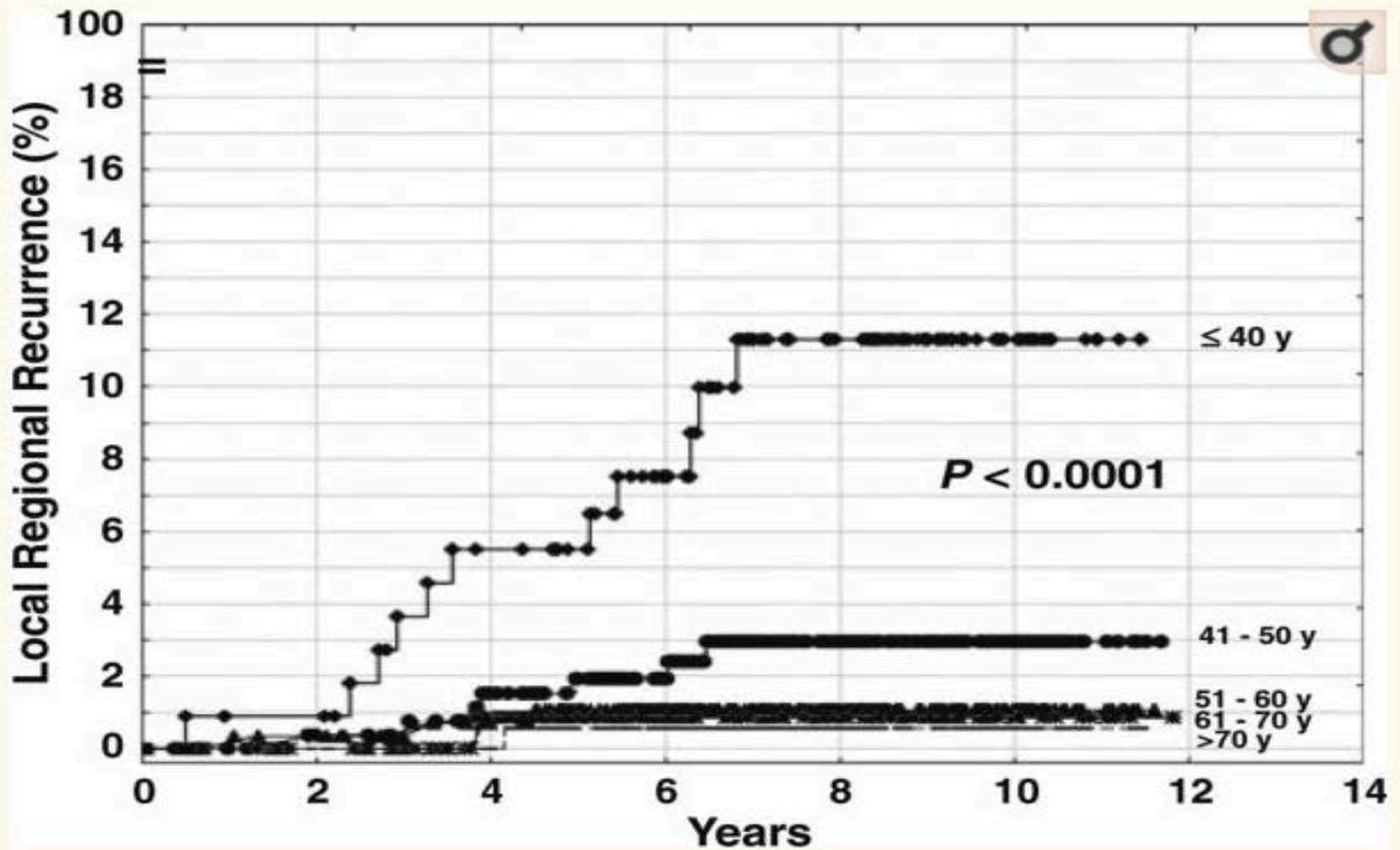


FIG. 1

Risk of locoregional recurrence with respect to age after mastectomy without radiotherapy

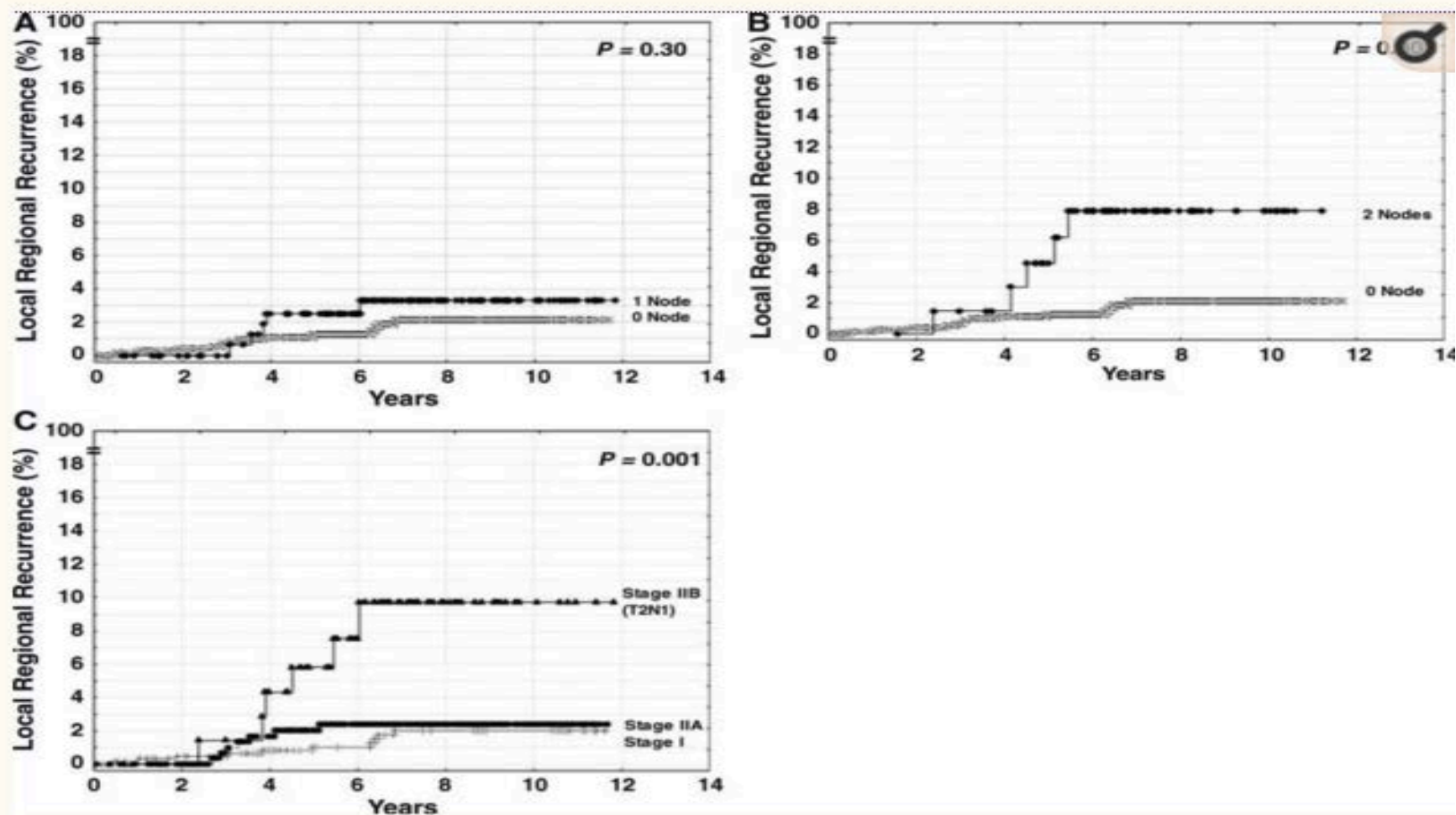


FIG. 2

Risk of locoregional recurrence with respect to nodal status and pathologic stage after mastectomy without radiotherapy. **a** Patients with 0 vs. 1 positive lymph node. **b** Patients with 0 vs. 2 positive lymph nodes. **c** Patients with pathologic stage I vs. IIA or IIB disease

Conclusão do Estudo

- Idade Jovem (< 40 anos) – fator independente de RLR
- RLR em pacientes entre pacientes sem LN + e pacientes com 1 LN + não foi significativa (2,1 % e 3,3% respectivamente)



ORIGINAL ARTICLE – BREAST ONCOLOGY

Most Breast Cancer Patients with T1-2 Tumors and One to Three Positive Lymph Nodes Do Not Need Postmastectomy Radiotherapy

Shirin Muhsen, MD¹, Tracy-Ann Moo, MD¹, Sujata Patil, PhD², Michelle Stempel, MPH¹, Simon Powell, MD, PhD³, Monica Morrow, MD¹, and Mahmoud El-Tamer, MD¹

¹Breast Service, Department of Surgery, Memorial Sloan Kettering Cancer Center, New York, NY; ²Department of Epidemiology and Biostatistics, Memorial Sloan Kettering Cancer Center, New York, NY; ³Department of Radiation Oncology, Memorial Sloan Kettering Cancer Center, New York, NY

MSKCC – 1995 a 2006 – 1087 pacientes

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graph TD; A[MSKCC – 1995 a 2006 – 1087 pacientes] --> B[T1-2 com 1 à 3 LN +]; B --> C[Follow-up – 10 anos]; C --> D[Dois Grupos: sem PMRT (85%) e PMRT (15%)]
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T1-2 com 1 à 3 LN +

Follow-up – 10 anos

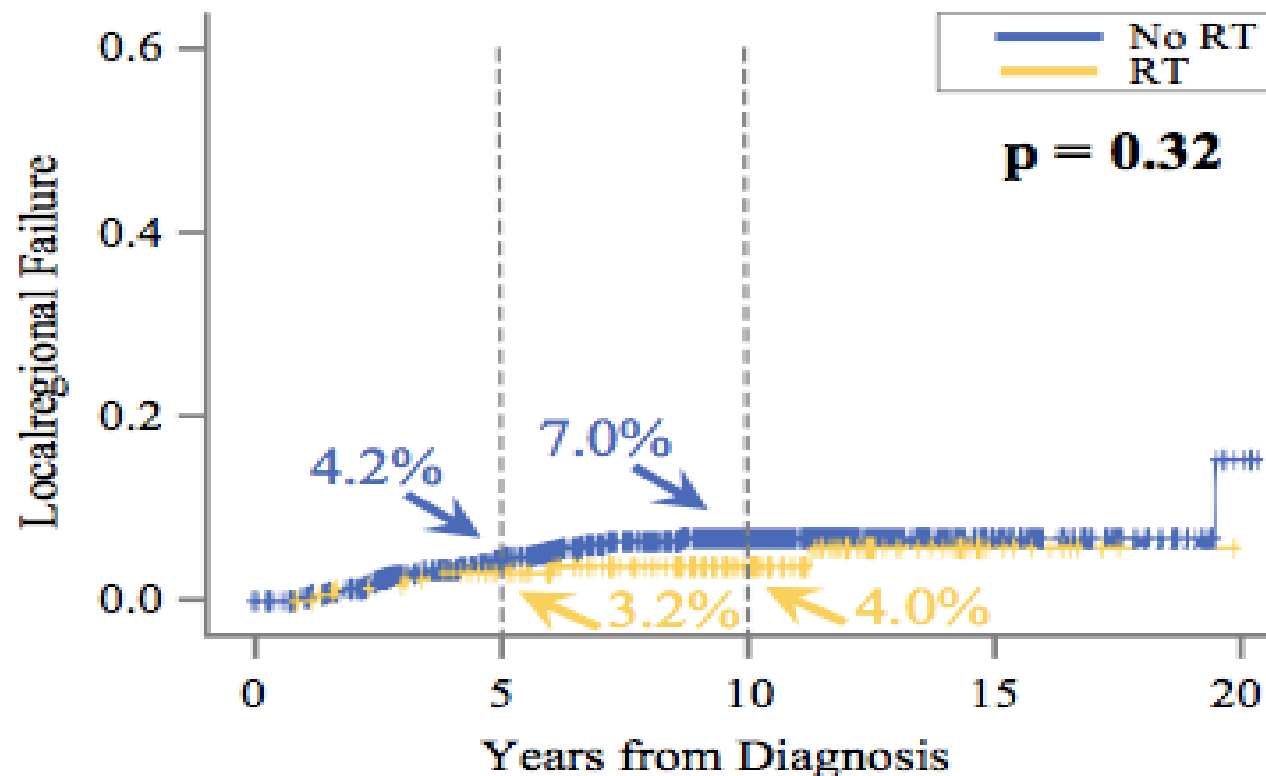
Dois Grupos: sem PMRT (85%) e PMRT (15%)

TABLE 1 Clinicopathologic and treatment characteristics

Characteristic	Variable	No PMRT <i>n</i> = 924 [<i>N</i> (%)]	PMRT <i>n</i> = 163 [<i>N</i> (%)]
Age, years	< 40	147 (16)	33 (20)
	40–50	264 (29)	62 (38)
	50–60	232 (25)	36 (22)
	60–70	150 (16)	17 (10)
	> 70	131 (14)	15 (9)
Tumor size, cm	0.1–2.0	561 (61)	77 (47)
	2.1–5.0	363 (39)	86 (53)
Histological grade ^a	I	20 (2)	2 (1)
	II	204 (22)	23 (14)
	III	572 (62)	118 (72)
Nuclear grade ^a	I	20 (2)	0 (0)
	II	366 (40)	57 (35)
	III	365 (40)	77 (47)
Extensive intraductal component ^a	Yes	243 (26)	41 (25)
	No	678 (73)	122 (75)
Multifocal/multicentric	Yes	390 (42)	74 (45)
	No	534 (58)	89 (55)
Lymphovascular invasion	Yes	408 (44)	104 (64)
	No	516 (56)	59 (36)
Extracapsular extension	Yes	115 (12)	54 (33)
	No	809 (88)	108 (66)

TABLE 1 Clinicopathologic and treatment characteristics

Characteristic	Variable	No PMRT <i>n</i> = 924 [<i>N</i> (%)]	PMRT <i>n</i> = 163 [<i>N</i> (%)]
Axillary procedure	SLNB only	60 (6)	3 (2)
	ALND	864 (94)	160 (98)
Number of positive nodes	1	577 (62)	51 (31)
	2	242 (26)	61 (37)
	3	105 (11)	51 (31)
Size of axillary nodal metastasis ^a	Macroscopic	661 (72)	143 (88)
	Microscopic	259 (28)	19 (12)
Estrogen receptor ^a	Positive	710 (77)	117 (72)
	Negative	197 (21)	44 (27)
Progesterone receptor ^a	Positive	552 (60)	99 (61)
	Negative	358 (39)	62 (38)
HER2 status ^a	Amplified	107 (12)	24 (15)
	Not amplified	611 (66)	121 (74)
Systemic chemotherapy ^a	Yes	793 (86)	157 (96)
	No	129 (14)	6 (4)



At Risk:

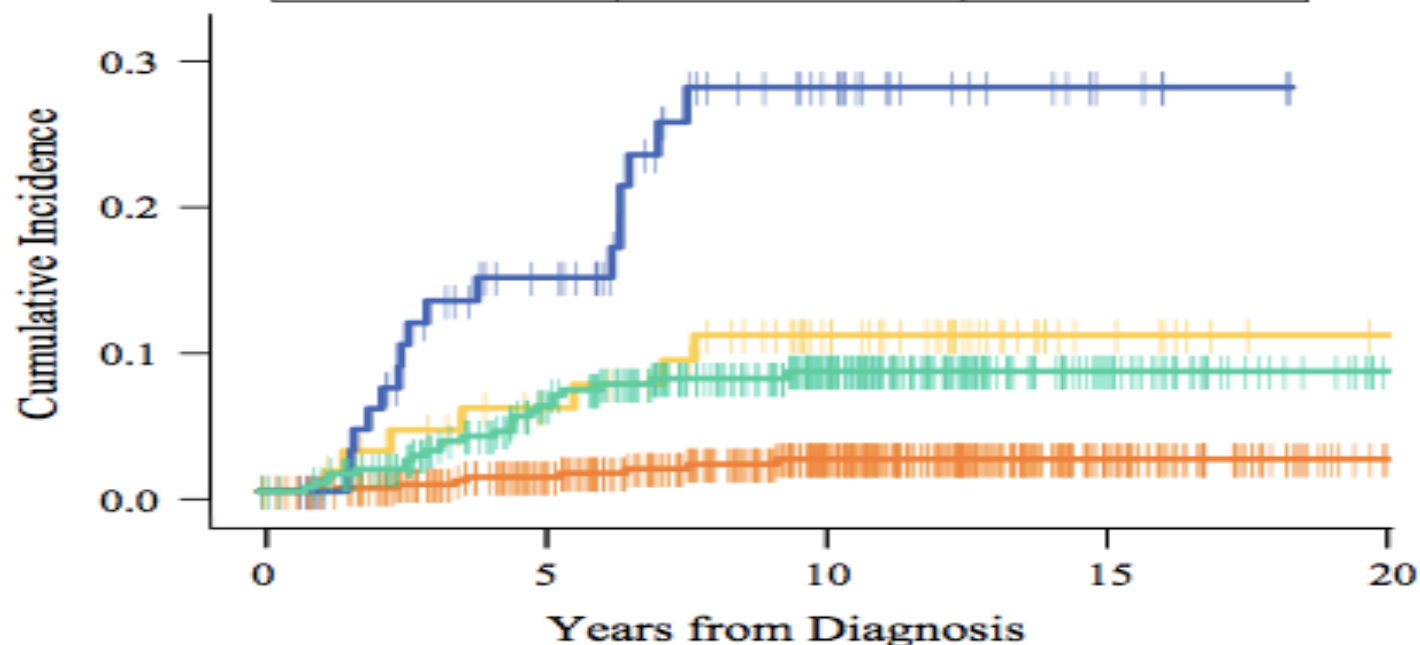
No RT	924	734	460	131	19
RT	163	142	90	23	1

Ann Surg Oncol

Monica Morrow, MD1, and Mahmoud El-Tamer, MD1

Published online: 21 March 2018

5-year LRR	10-year LRR	
15%	28%	< 40, LVI
6%	11%	< 40, No LVI
6%	8%	≥ 40, LVI
1%	2%	≥ 40, No LVI



At Risk:				
LVI, < 40	75	49	21	5
No LVI, < 40	72	59	39	10
LVI, ≥ 40	333	261	162	43
No LVI, ≥ 40	444	365	238	73

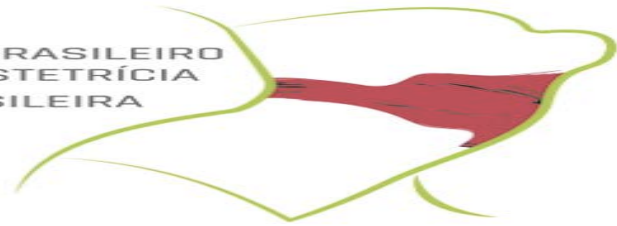
FIG. 2 Comparison of locoregional recurrence rates in the no-PMRT group by age and lymphovascular invasion. *PMRT* postmastectomy radiotherapy, *LVI* lymphovascular invasion

Conclusão do Estudo

- PMRT tem benefício em relação a RLR principalmente em pacientes de Alto Risco
- Idade se mostrou fator importante em relação a RLR em ambos os Estudos
- Comparando com Estudos anteriores (EBCCTCG meta-analise , EORTC 22922) – observou-se redução significativa da RLR (cerca de 50%)

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✧ *Margens de Ressecção Positiva ou Exíguas são associadas com um risco aumentado de recorrência na parede torácica em Mulheres com DCIS – tratadas com Mastectomia ?*

DCIS e Mastectomia

- DCIS compreende aproximadamente 25% dos Ca de Mama – detectados por Mamografia
- 1/3 das pacientes são tratados com Mastectomia

DCIS e Mastectomia

- Relato na Literatura do risco aumentado de RLR em pacientes com Margem Positiva e Cirurgia Conservadora.
- Risco de Recidiva - é o mesmo para Mastectomia ?

RESEARCH

Open Access



Close or positive resection margins are not associated with an increased risk of chest wall recurrence in women with DCIS treated by mastectomy: a population-based analysis

Jonathan Klein^{1,2}, Iwa Kong^{1,2}, Lawrence Paszat^{1,2,3}, Sharon Nofech-Mozes^{2,4}, Wedad Hanna^{2,4}, Deva Thiruchelvam³, Steven A. Narod⁵, Refik Saskin³, Susan J. Done⁶, Naomi Miller^{2,6}, Bruce Youngson⁶, Alan Tuck⁷, Sandip Sengupta⁸, Leela Elavathil⁹, Prashant A. Jani¹⁰, Elzbieta Slodkowska^{2,4}, Michel Bonin¹¹ and Eileen Rakovitch^{1,2,3*}

In summary, we obtained full text electronic copies of all breast pathology reports held at the Ontario Cancer Registry (OCR) from **January, 1994 through December, 2003**

We identified 5,322 women diagnosed with pure DCIS treated from 1994 to 2003; of these, **1,821** were treated with mastectomy.

Table 1 Patient characteristics

N = 1524	
Age	
Mean (SD)	57.1 (12.1)
<45	248 (16.3%)
45–50	243 (15.9%)
>50	1033 (67.8%)
Nuclear grade	
Low	99 (6.5%)
Intermediate	286 (18.8%)
High	426 (28.0%)
Unreported	713 (46.8%)
Resection Margin Width	
≤2 mm	668 (43.8%)
>2 mm	436 (28.6%)
Unknown	420 (27.6%)
Multifocality	
Present	340 (22.3%)
Absent/Unreported	1184 (77.7%)
Necrosis	
Present	618 (40.6%)
Absent/unreported	906 (59.4%)
Histologic Subtype	
Solid	833 (54.7%)
Cribriform	256 (16.8%)
Other	107 (7.0%)
Unreported	328 (21.5%)
Axillary Node Dissection	
Yes	585 (38.4%)
No	939 (61.6%)

N number of patients, *SD* standard deviation

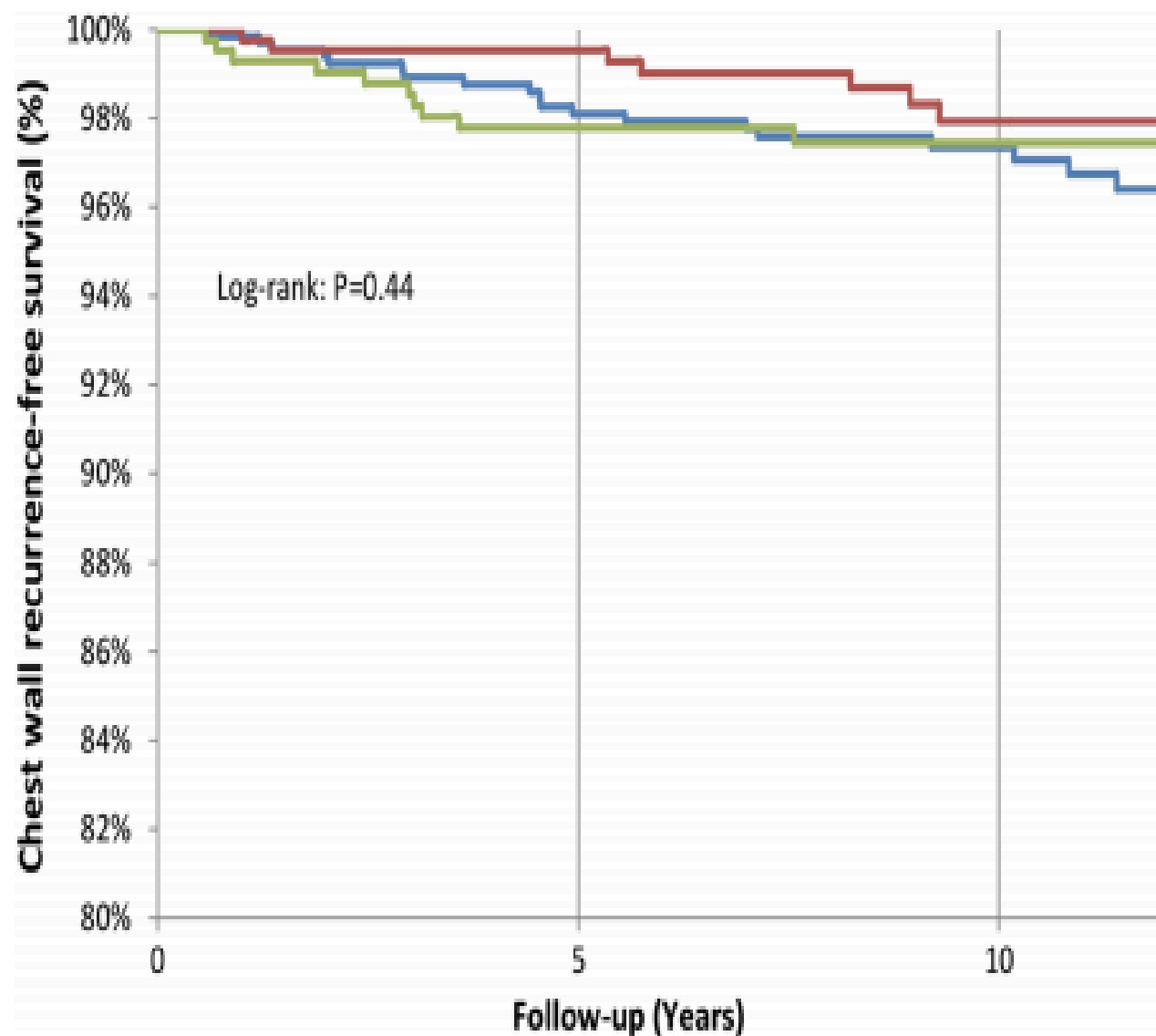


Figure 1 Kaplan-Meier curve showing chest wall recurrence-free survival in women with pure DCIS treated with mastectomy divided into subgroups by resection margin status. Blue close (≤ 2 mm) margins, Red negative (> 2 mm) margins, Green unreported margin status.

Table 2 Patient characteristics and chest wall recurrence following mastectomy for DCIS

Variable	Chest Wall Recurrence		p value
	No (N = 1488)	Yes (N = 36)	
Age			
Mean (SD)	57.2 (12.1)	54.1 (11.3)	0.13
≤45	241 (16.2%)	7 (19.4%)	0.20
45–50	236 (15.9%)	7 (19.4%)	
>50	1011 (67.9%)	22 (61.1%)	
Nuclear Grade			
Low	98 (6.6%)	≤5	0.41
Intermediate	282 (19.0%)	≤5	
High	413 (27.8%)	13 (36.1%)	
Unreported	695 (46.7%)	18 (50.0%)	
Resection Margin Width			
≤2 mm	649 (43.6%)	19 (52.8%)	0.23
>2 mm	429 (28.8%)	7 (19.4%)	
Unknown	410 (27.6%)	10 (27.8%)	
Multifocality			
Absent/Unreported	1154 (77.6%)	30 (83.3%)	0.41
Present	340 (22.4%)	6 (16.7%)	
Necrosis			
Present	604 (40.6%)	14 (38.9%)	0.74
Absent/unreported	884 (59.4%)	22 (61.1%)	
Histologic Subtype			
Solid	806 (54.2%)	27 (75.0%)	0.07
Cribriform	252 (16.9%)	≤5	
Other	107 (7.2 %)	≤5	
Unreported	323 (21.7%)	≤5	
Node Dissection			
Yes	574 (38.6%)	11 (30.6%)	0.33
No	914 (61.4%)	25 (69.4%)	

N number of patients, SD standard deviation

Table 4 Chest wall recurrence rates by patient subgroup

Variable	N	Chest wall recurrences	10 year actuarial chest wall recurrence rate	p value
Age				0.20
<45	248	7	2.7	
45–50	243	7	2.9	
>50	1033	22	2.4	
Nuclear Grade				0.44
Low	99	≤5	<5%	
Intermediate	286	≤5	<5%	
High	426	13	3.5	
Unreported	713	18	2.6	
Margin Width				0.24
≤2 mm	668	19	2.7	
>2 mm	436	7	2.1	
Missing	367	10	2.9	
Multifocality				0.37
Present	340	6	2.7	
Absent	1184	30	1.9	
Necrosis				0.80
Present	618	14	2.5	
Absent	906	27	1.3	
Histologic Subtype				0.08
Solid	833	27	3.6	
Cribriform	256	<5	<5	
Other	107	<5	<5	
Unreported	328	<5	<5	
Year of Diagnosis				0.1
1994–1996	378	15	4.0	
1997–1999	499	12	2.4	
2000–2002	647	9	1.4	
Combined factors				
Age <45 years + high grade grade	83	<5	<5	
Age < 45 years + margins ≤2 mm	130	<5	<5	
High grade + margins ≤2 mm	202	6	3.2	

ORIGINAL ARTICLE – BREAST ONCOLOGY

Incidence and Consequence of Close Margins in Patients with Ductal Carcinoma-In Situ Treated with Mastectomy: Is Further Therapy Warranted?

Elizabeth FitzSullivan, MD¹, Sara A. Lari, BS¹, Benjamin Smith, MD², Abigail S. Caudle, MD¹, Savitri Krishnamurthy, MD³, Anthony Lucci, MD¹, Elizabeth A. Mittendorf, MD, PhD¹, Gildy V. Babiera, MD¹, Dalliah M. Black, MD¹, Jamie L. Wagner, DO¹, Isabelle Bedrosian, MD¹, Wendy Woodward, MD², Sarah M. Gainer, MD¹, Rosa Hwang, MD¹, Funda Meric-Bernstam, MD¹, Kelly K. Hunt, MD¹, and Henry M. Kuerer, MD, PhD¹

¹Department of Surgical Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX; ²Department of Radiation Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX; ³Department of Pathology, The University of Texas MD Anderson Cancer Center, Houston, TX

Methods.

The records of **810** patients with DCIS treated with **mastectomy from 1996 through 2009** were reviewed.

Clinical and pathologic factors were analyzed with respect to final margin status. Median follow-up was **6.3 years**

Results.

Overall, 94 patients (11.7 %) had close margins

The 10-year LRR rate was

5.0 % for margins < 1 mm,

3.6 % for margins 1.1–2.9 mm, and 0.7 % for margins > 3 mm.

The 10-year rate of contralateral breast cancer was 6.4%

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Elizabeth FitzSullivan, MD¹, Sara A. Lari, BS¹, Benjamin Smith, MD², Abigail S. Caudle, MD¹, Savitri Krishnamurthy, MD³, Anthony Lucci, MD¹, Elizabeth A. Mittendorf, MD, PhD¹, Gildy V. Babiera, MD¹, Dalliah M. Black, MD¹, Jamie L. Wagner, DO¹, Isabelle Bedrosian, MD¹, Wendy Woodward, MD², Sarah M. Gainer, MD¹, Rosa Hwang, MD¹, Funda Meric-Bernstam, MD¹, Kelly K. Hunt, MD¹, and Henry M. Kuerer, MD, PhD¹

¹Department of Surgical Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX; ²Department of Radiation Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX; ³Department of Pathology, The University of Texas MD Anderson Cancer Center, Houston, TX

Conclusions:

As the LRR rate in patients with close margins is low and less than the rate of contralateral breast cancer, PMRT is not warranted except for patients with multiple close/positive margins that cannot be surgically excised.

Conclusões dos Estudos

- *Pacientes com DCIS tratadas com Mastectomia apresentaram baixa taxa de recorrência local*
- *PMRT não necessita ser indicada rotineiramente*

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✧ *Cancer de Mama em pacientes com Síndromes e Mutações*

Síndrome de Li-Fraumeni

- *Pacientes com SLF :*
 - A Radiação pode predispor à um Segundo Tumor Primário em pacientes com SLF
- *Tu radio- induz- latência curto (8 anos)*

- *Tu radio-induzidos*
 - *aprox. 2%*
 - *período de latência – 10 – 15 anos*

Gene ATM

- *Gene ATM (Ataxia Telangiectasia Mutated) – Gene que confere risco aumentado de Ca de Mama*
- *Mutação ATM Heterozigoto –*
Indivíduos que são Heterozigotos para o ATM podem ter uma Síndrome mais Suave de sensibilidade a Radiação.
- *Mutação ATM Homozigoto – resulta em aumento potencial da toxicidade com RxT, devido a um defeito no reparo no DNA*
- *Mutação ATM Homozigoto – RxT é contra-indicada*

Conclusões

- *Pacientes T1-2 com 1 à 3 LN +*
 - *Compreende grupo heterogêneo de pacientes*
 - *A RLR depende não somente do período estudado (tratamento sistêmico utilizado), mas de características do tumor e do paciente*

Conclusões

- Pacientes com T1 e 1 LN + (Baixo Risco)- PMRT poderá ser omitida
- Margens de ressecção Positiva após Mastectomia em DCIS – não indica RxT

Conclusões

- *SLF:*

- ✓ *RxT Adjuvante pr Ca de Mama Localizado deve ser extensamente discutido e proibido sempre que o risco/benefício é duvidoso*
- ✓ *A Mastectomia é opção ,para evitar a necessidade de RxT*

- *Mutação ATM:*

- ✓ *Em Homozigose - não indicar RxT*

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Postmastectomy Radiation Therapy:

Are We Ready to Individualize Radiation?

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