

Mário Casales Schorr

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



Fellowship em Cirurgia Reconstructora da Mama e Pesquisa Clínica no Serviço de Cirurgia Plástica Reconstructiva da Mama do Instituto Europeu de Oncologia de Milão, Itália.

Mestre e Doutorando em Patologia Experimental pela Universidade Federal de Ciências da Saúde de Porto Alegre - UFCSPA.

Chefe do Serviço de Residência Médica em Mastologia do Hospital Nossa Senhora da Conceição.

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Cirurgia conservadora da mama pós quimioterapia neo: Qual a melhor estratégia de marcação? Como definir a extensão da ressecção?

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Breast cancer dissemination

Local Evolution

Systemic Disease

William
Halsted

Umberto
Veronesi

Neadjuvância e cirurgia conservadora

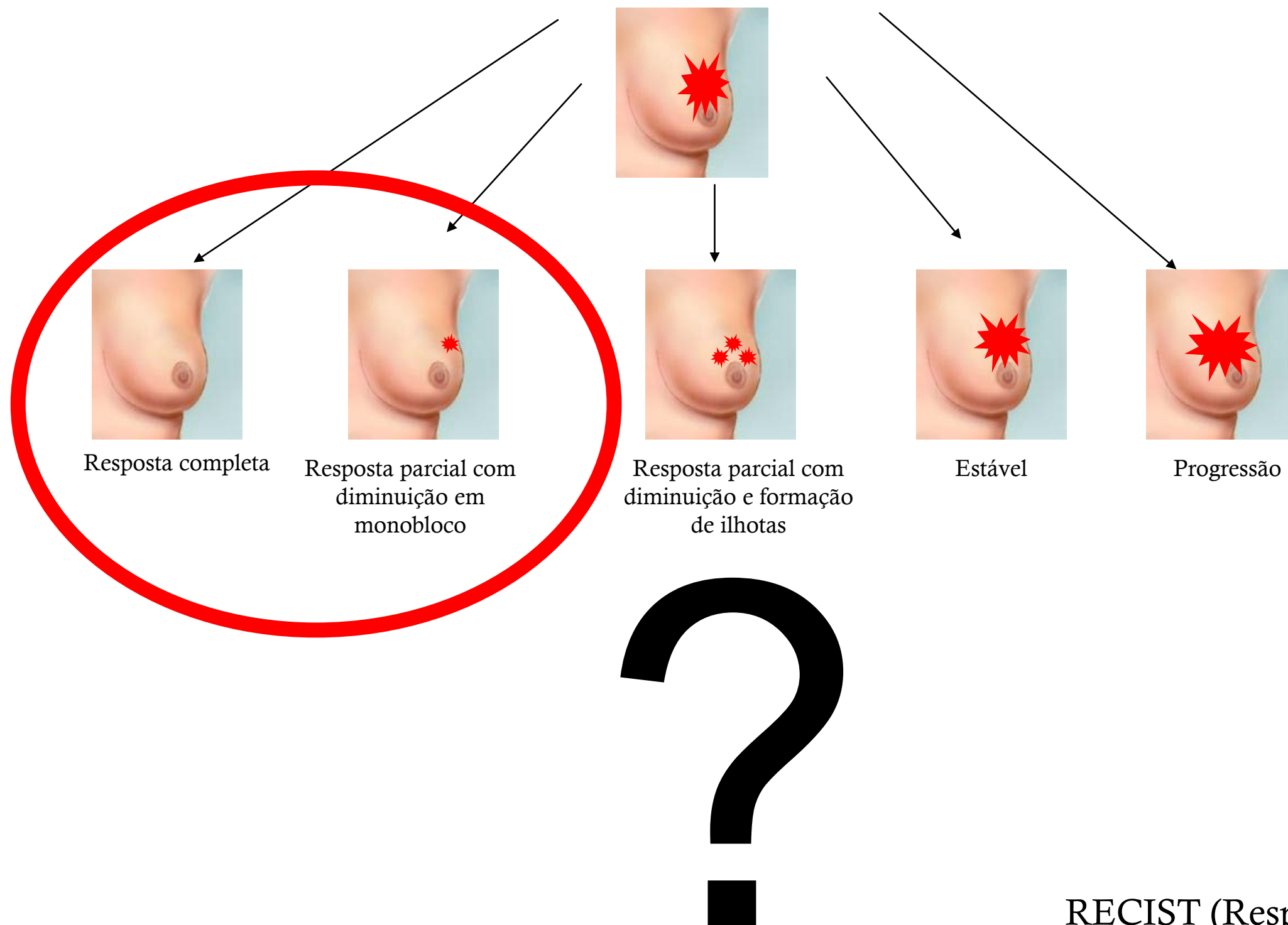
Limites do conceito de diminuição máxima da carga tumoral e RT adjuvante para maximizar controle local

**Maximum
Tolerable**



**Minimum
Necessary**

A possibilidade de cirurgia conservadora depende de como ocorre a resposta tumoral



RECIST (Response Evaluation Criteria in Solid Tumors)

Qual a melhor estratégia de marcação?

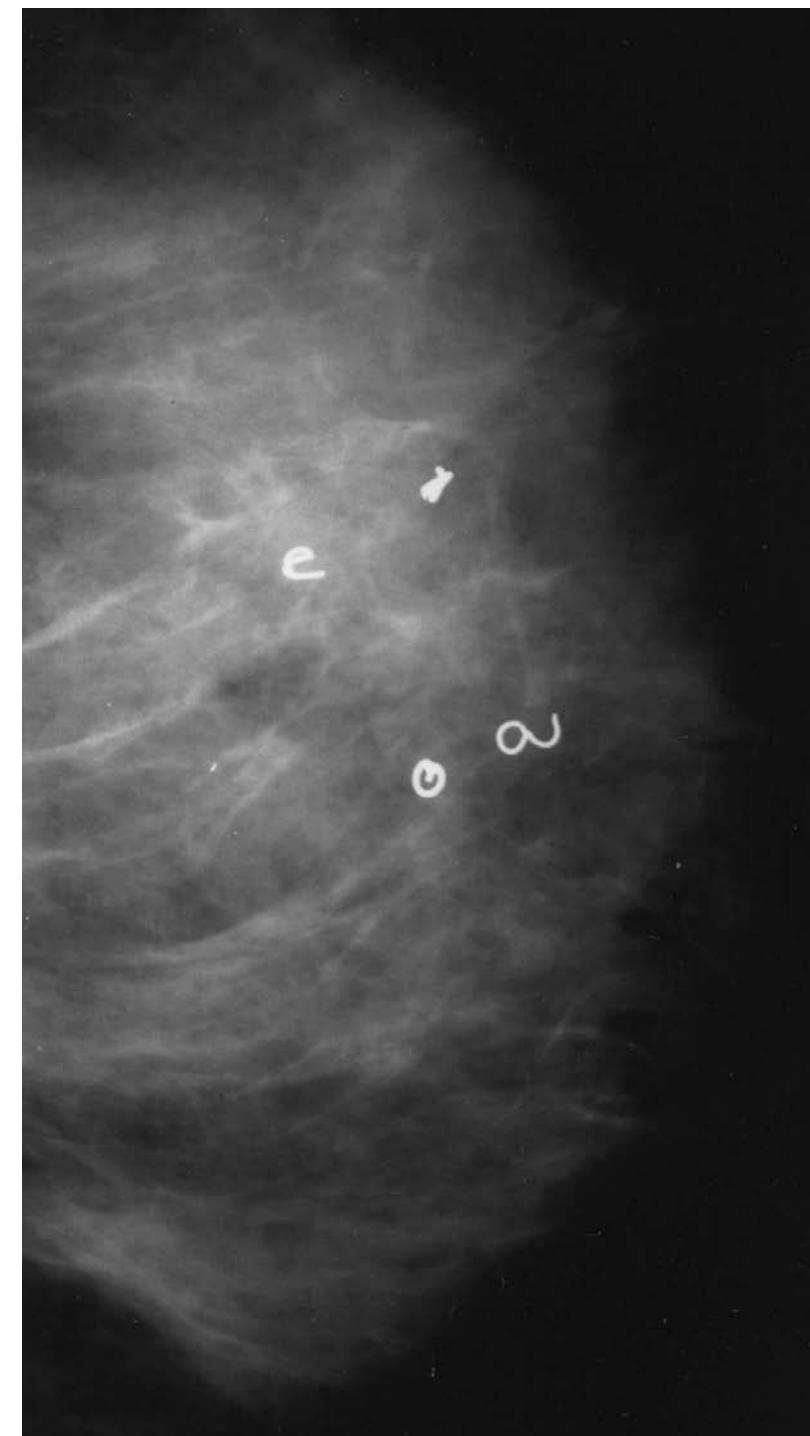
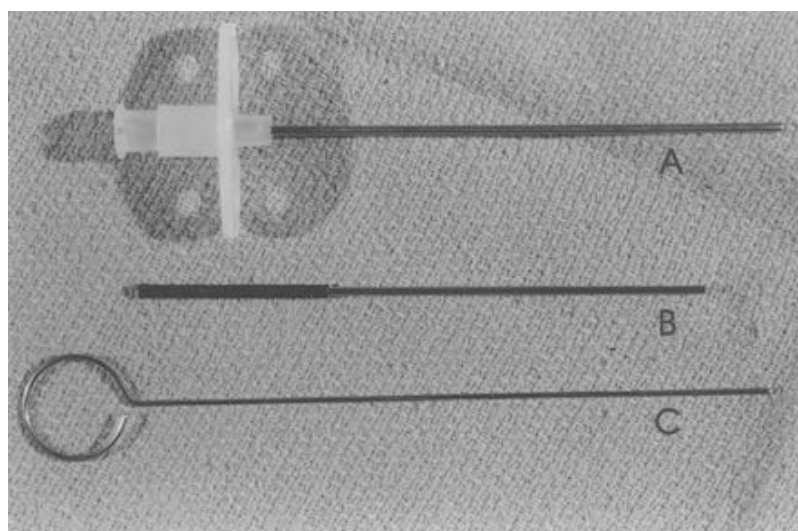
2000

Technical Innovation

Embolization Coils as Tumor Markers for Mammography in Patients Undergoing Neoadjuvant Chemotherapy for Carcinoma of the Breast

M. Patricia Braeuning¹, Eithne T. Burke, Etta D. Pisano

AJR 2000;174:251–252 0361–803X/00/1741–251 © American Roentgen Ray Society



Ressecção de toda
área tumoral? Sempre
mastectomia?

Qual a melhor estratégia de marcação?

PREOPERATIVE SYSTEMIC THERAPY: BREAST AND AXILLARY EVALUATION

Preoperative
systemic
therapy
planned

Core biopsy of breast with placement of image-detectable marker(s), if not previously performed, must be done to demarcate the tumor bed for surgical management after preoperative systemic therapy

If ipsilateral axillary lymph node evaluation is negative

- Sentinel lymph node biopsy (SLNB) is preferably performed after preoperative systemic therapy

If ipsilateral axillary lymph node biopsy is positive, axilla may be restaged after preoperative systemic therapy;^{ll}

- Axillary lymph node dissection (ALND) should be performed if axilla is clinically positive.
- If the axilla is clinically negative after preoperative therapy, SLNB can be performed in selected cases (category 2B)^{mmm}; otherwise ALND should be performed.

[See Preoperative Systemic Therapy: Surgical Treatment \(BINV-12\)](#)

^{ll}Marking of sampled axillary nodes with a tattoo or clip should be considered to permit verification that the biopsy-positive lymph node has been removed at the time of definitive surgery.

^{mmm}Among patients shown to be node-positive prior to preoperative systemic therapy, SLNB has a >10% false-negative rate when performed after preoperative systemic therapy. This rate can be improved by marking biopsied lymph nodes to document their removal, using dual tracer, and by removing more than 2 sentinel nodes.

Modelo alternativo para introdução de clipe cirúrgico para localização do leito tumoral em pacientes submetidos à quimioterapia neoadjuvante: descrição da técnica

Alternative model for placement of surgical clip for tumor bed localization in patients undergoing neoadjuvant chemotherapy: technical description

Wesley Pereira Andrade¹, Miriam Rosalina Brites², Elvira Ferreira Marques²,
Maria do Socorro Maciel³, Maria Gorete Carneiro Passos Alves⁴

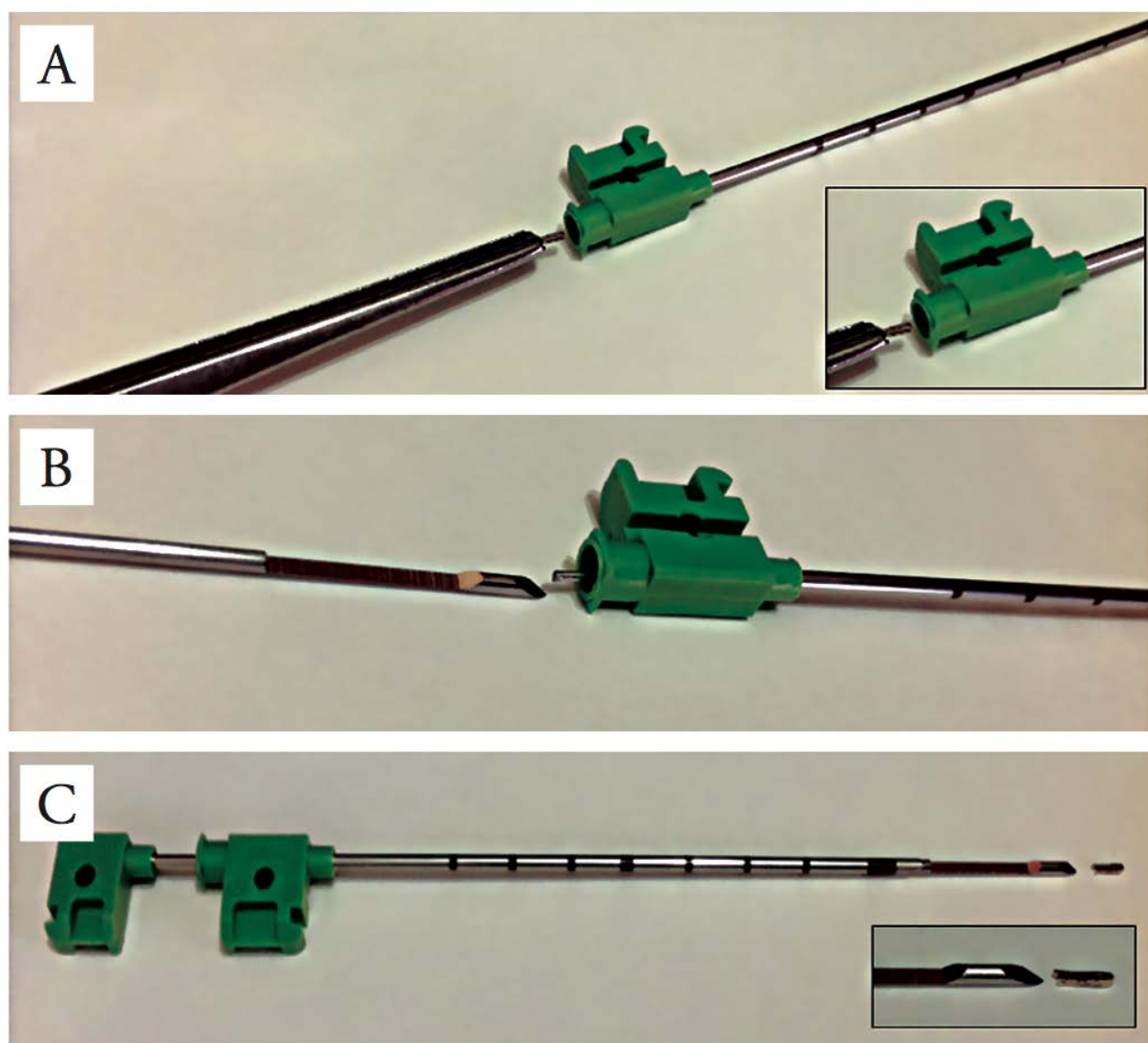


Figura 4. (A) Colocação do clipe dentro da agulha com auxílio de pinça; (B) Introdução do clipe com o auxílio da agulha interna; (C) Agulha interna além da extremidade da agulha externa liberando o clipe no interior do tumor

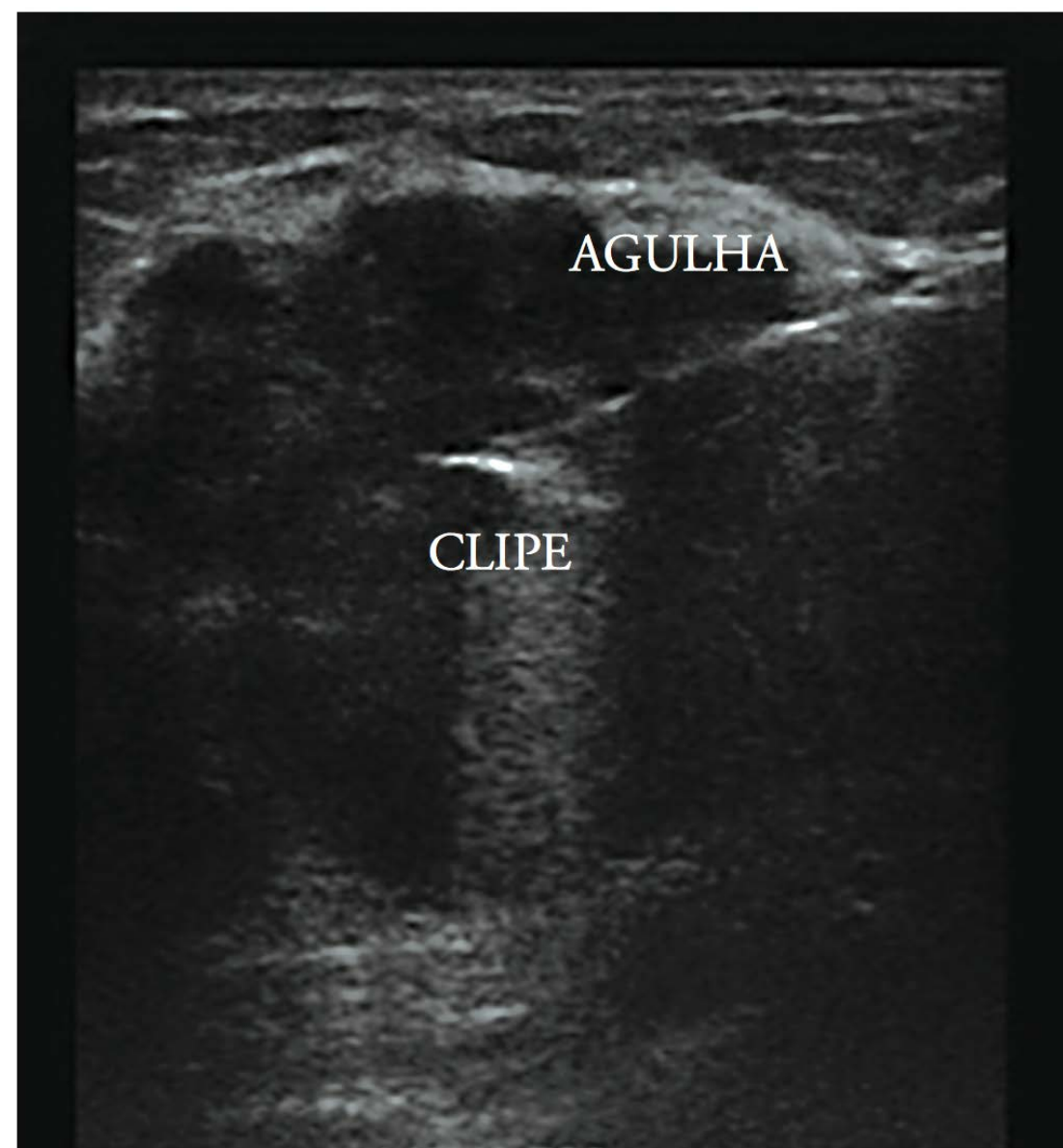
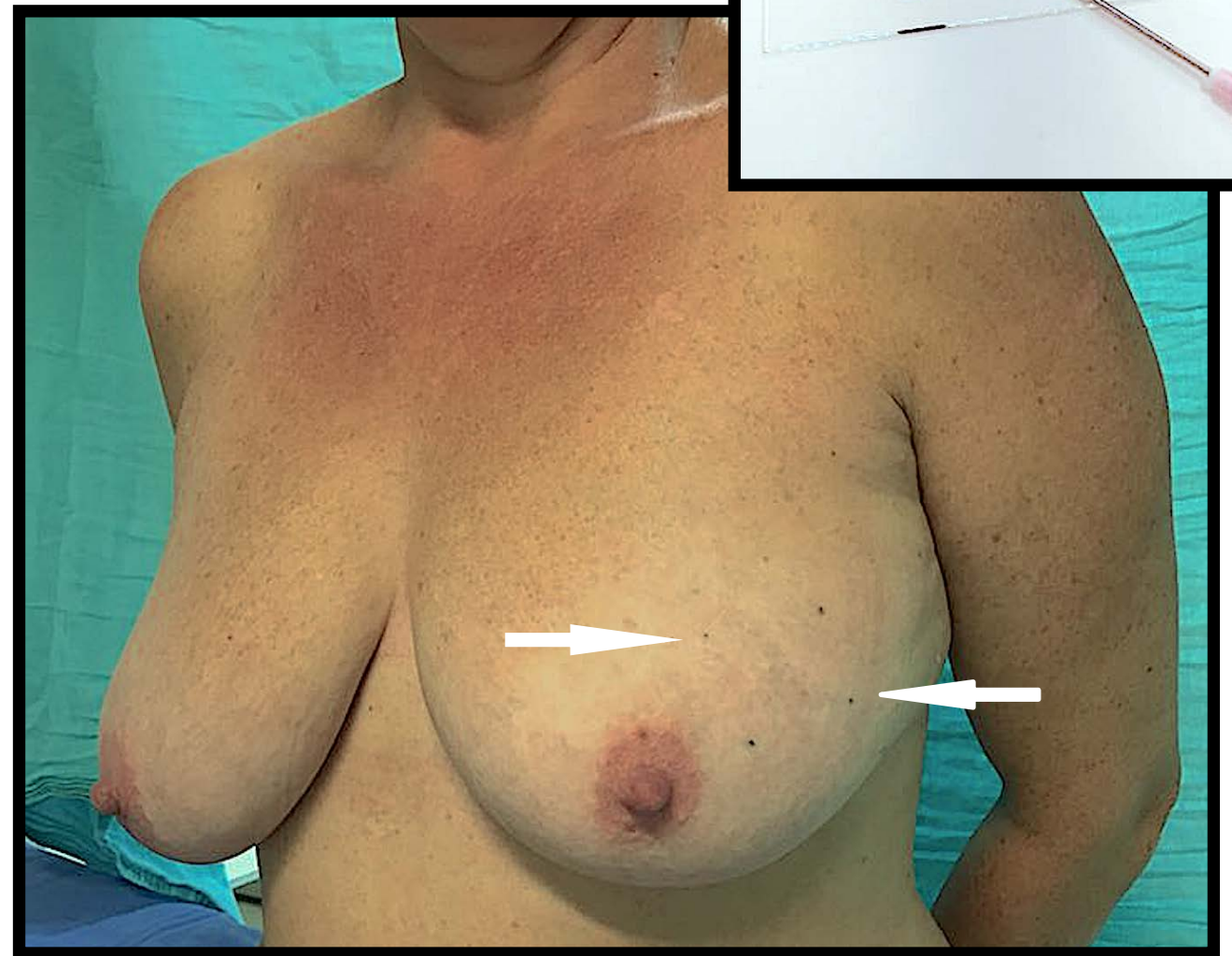
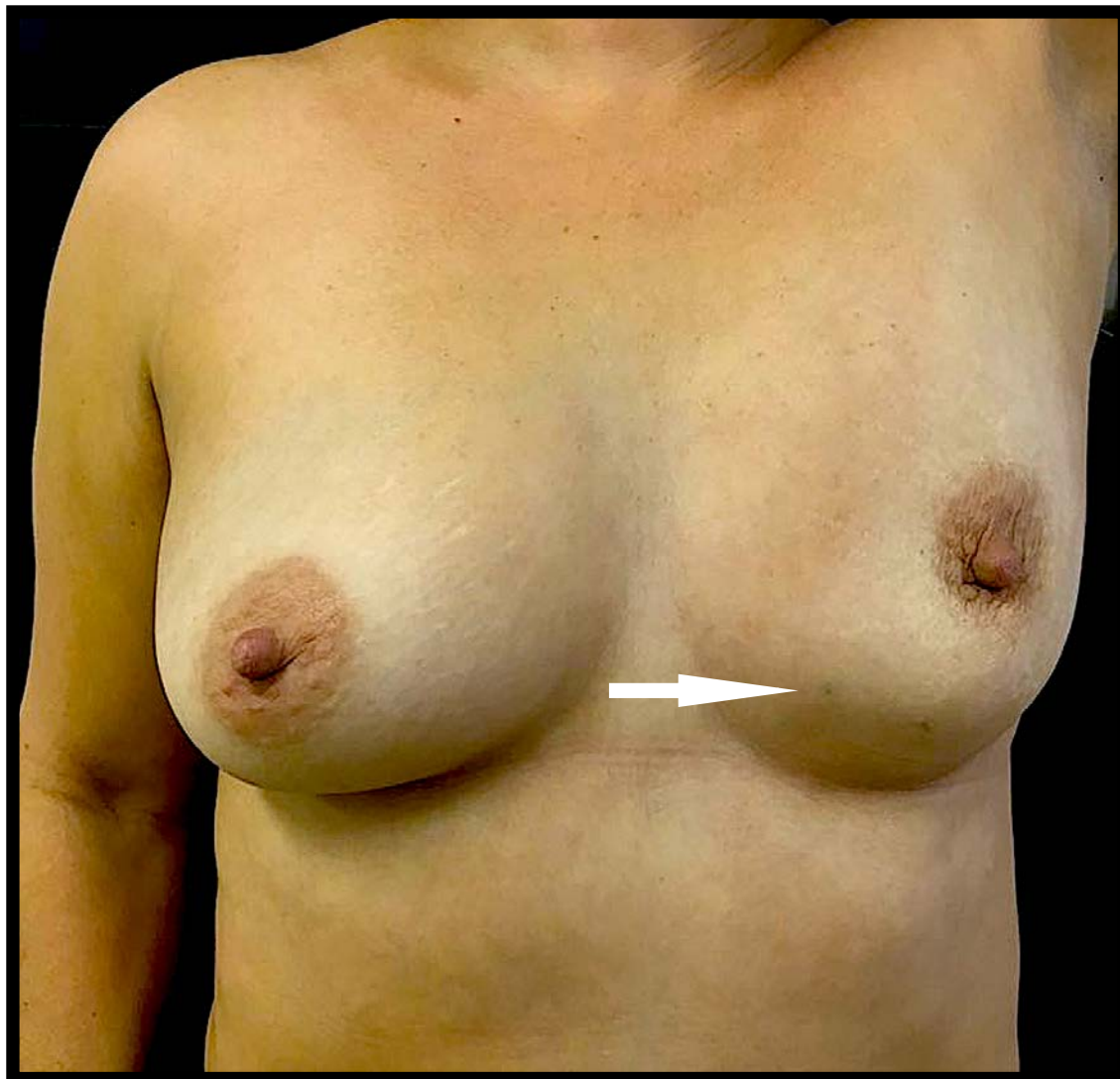


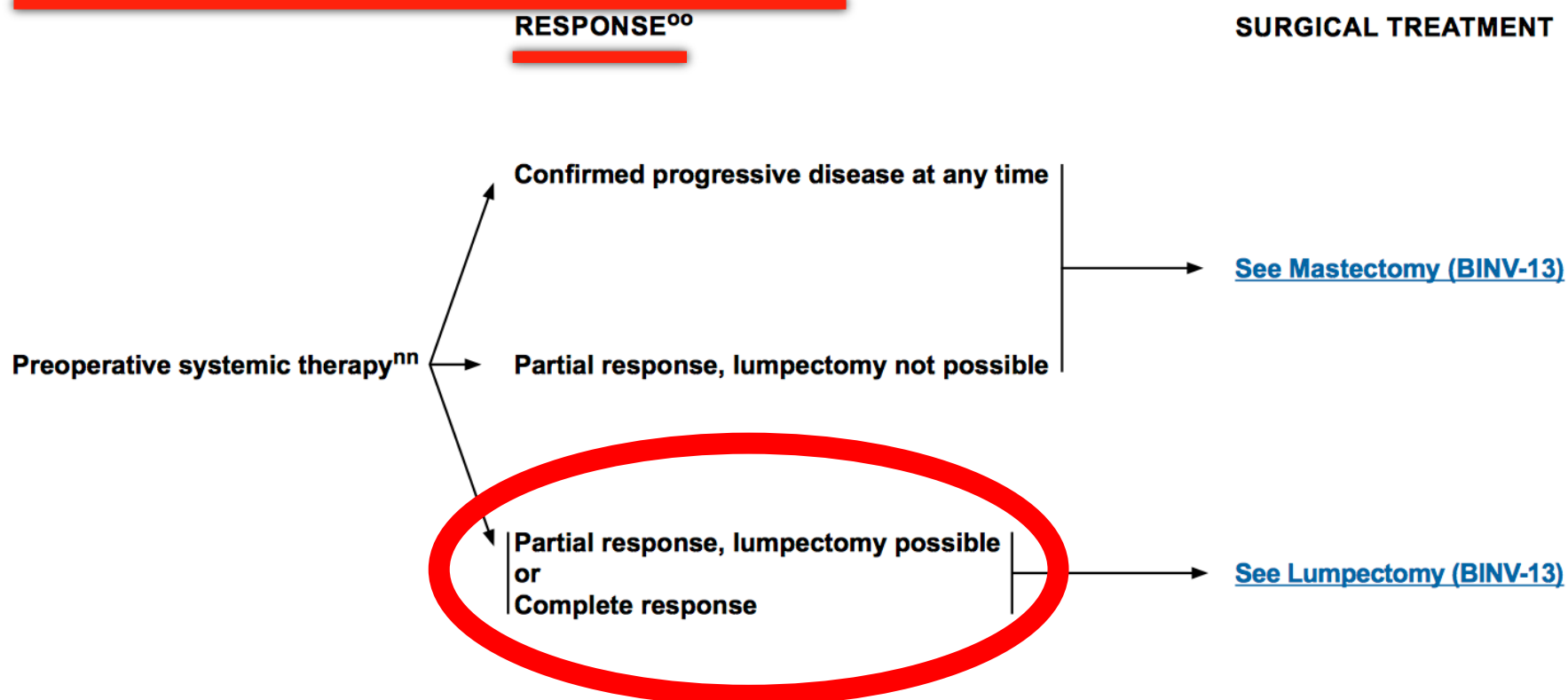
Figura 5. Ultrassonografia: controle da introdução do clipe

Marcação da pele com nanquim



Qual a melhor estratégia de marcação?

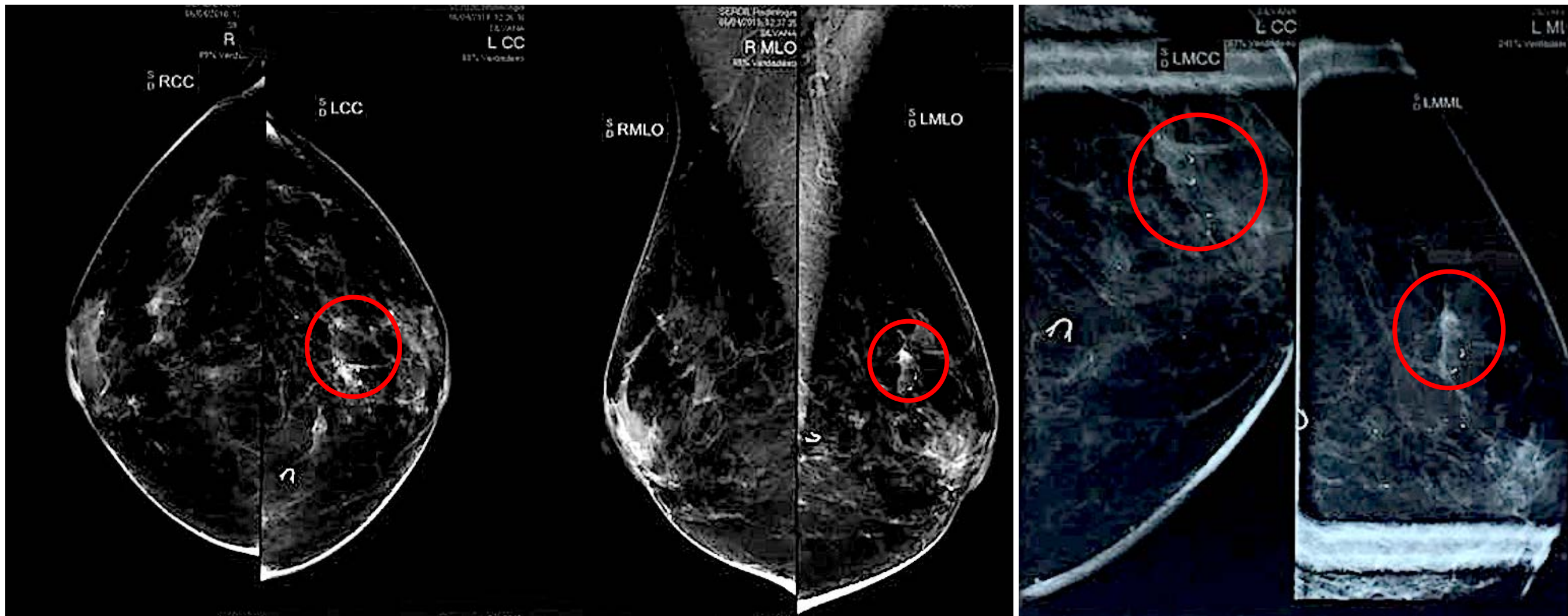
PREOPERATIVE SYSTEMIC THERAPY: SURGICAL TREATMENT



^{oo}The accurate assessment of in-breast tumor or regional lymph node response to preoperative systemic therapy is difficult, and should include physical examination and performance of imaging studies (mammogram and/or breast MRI) that were abnormal at the time of initial tumor staging. Selection of imaging methods prior to surgery should be determined by the multidisciplinary team.

Tão importante quanto a marcação do tumor pré-QT é diagnosticar o **padrão e extensão do tumor residual** pós-QT.

Os cliques também migram...



Do MRI and Mammography Reliably Identify Candidates for Breast Conservation After Neoadjuvant Chemotherapy?

Maxine S. Jochelson, MD¹, Katharine Lampen-Sachar, MD², Girard Gibbons, BA¹, Chau Dang, MD³, Diana Lake, MD³, Elizabeth A. Morris, MD¹, and Monica Morrow, MD⁴

Breast MRI is more accurate than mammography in assessing treatment response, but combined test reliability in identifying BCT candidates after NAC is not well described.

We evaluated whether post-NAC breast MRI alone and with mammography accurately identifies BCT candidates.

Methods—In this retrospective study of 111 consecutive breast cancer patients receiving NAC, all had pre- and postchemotherapy MRI, followed by surgery. Posttreatment MRI and mammography results were correlated with surgical outcomes and pathologic response.

Do MRI and Mammography Reliably Identify Candidates for Breast Conservation After Neoadjuvant Chemotherapy?

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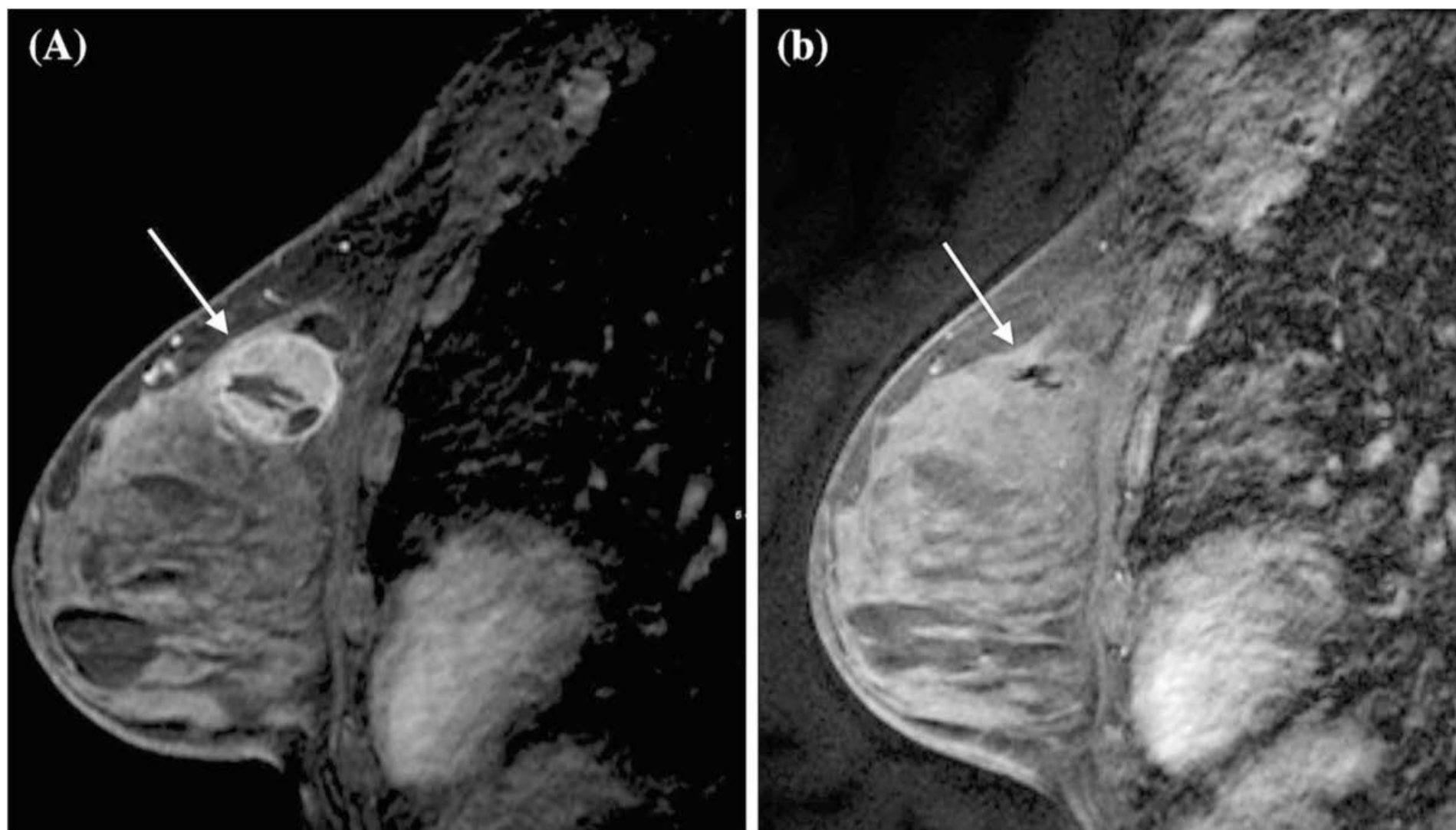


FIG. 1.

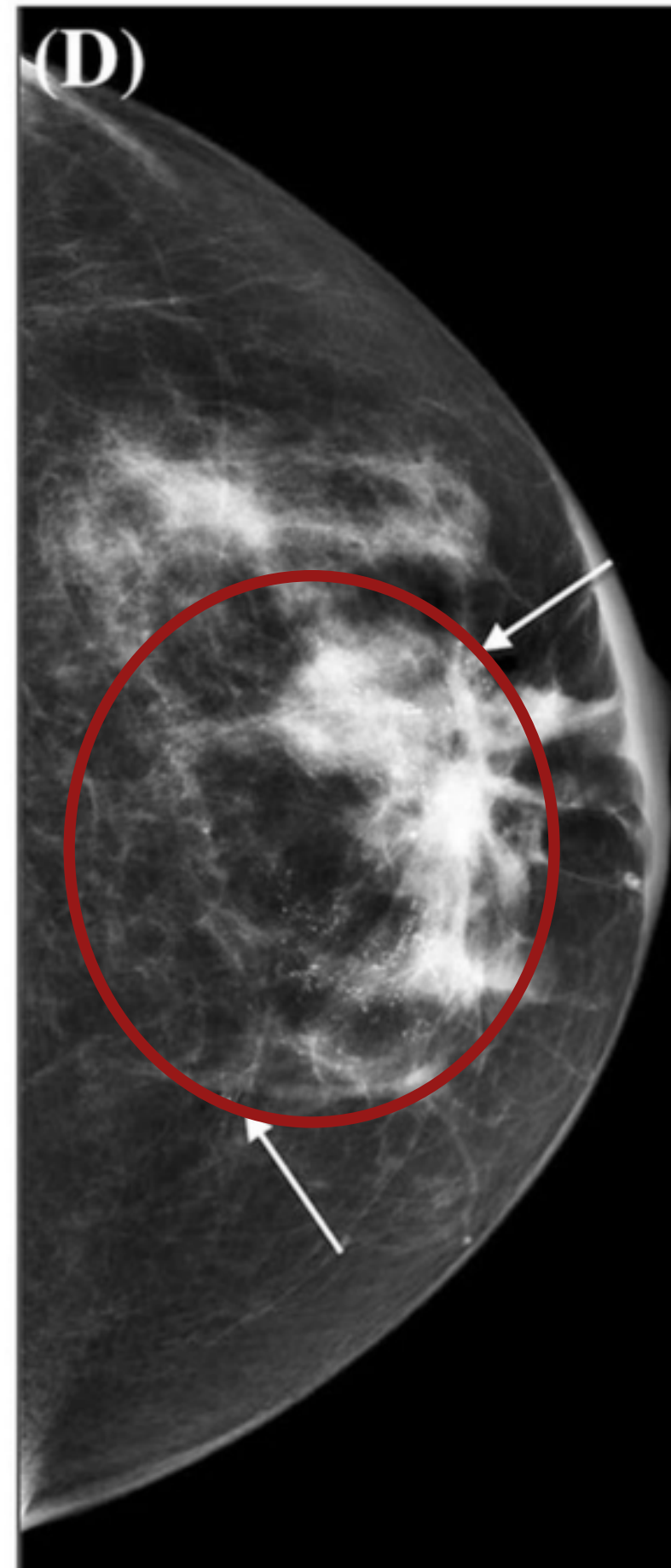
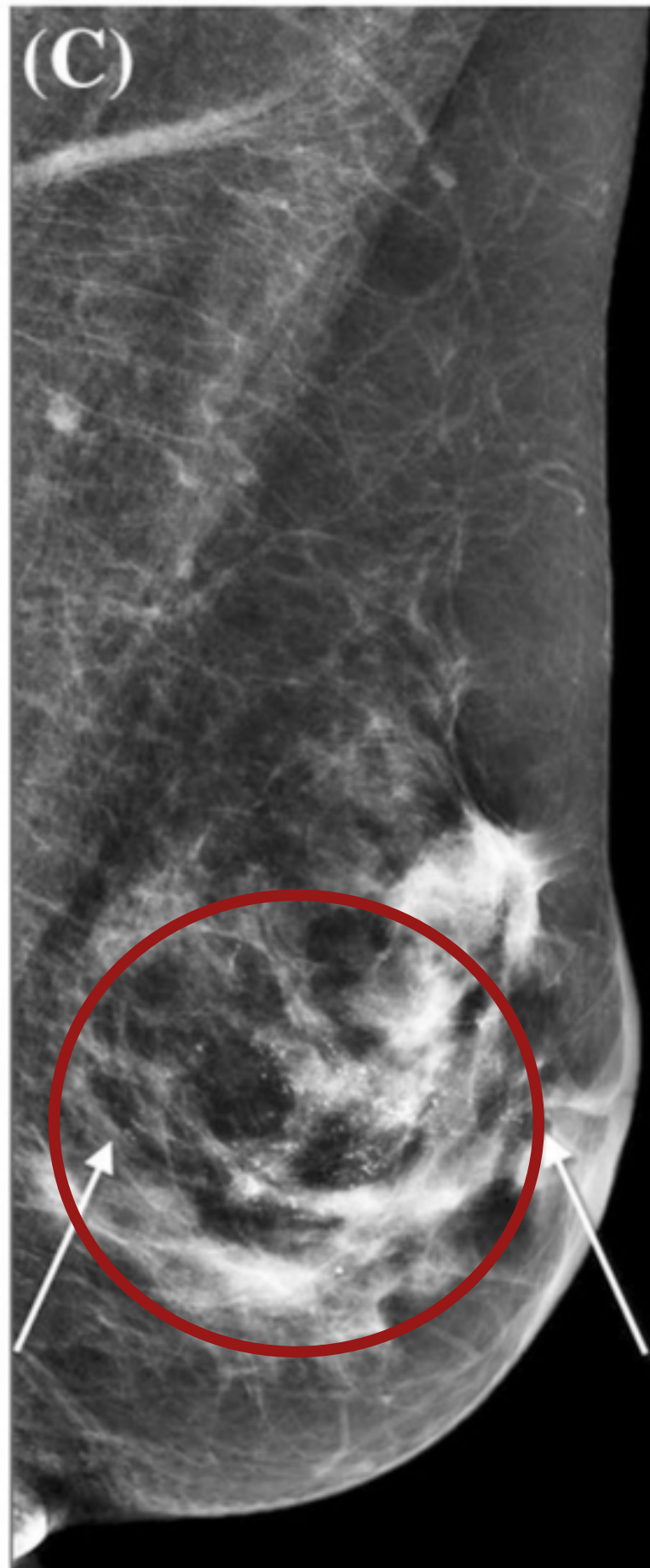
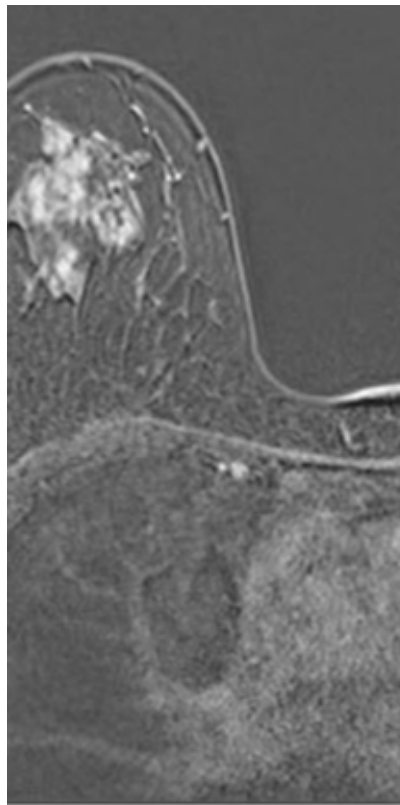
A 38-year-old with unifocal triple-negative disease with complete response by MRI. **a**

Pretreatment MRI demonstrating large enhancing mass in the upper left breast. **b**

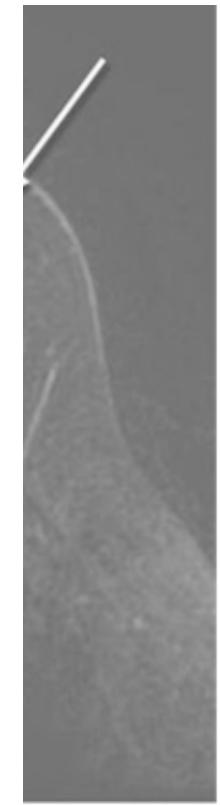
Posttreatment MRI demonstrating complete resolution of mass and abnormal enhancement

Do MRI Breast (

Maxine S. ...
Dang, MD³



au



Recommendations for standardized pathological characterization of residual disease for neoadjuvant clinical trials of breast cancer by the BIG-NABCG collaboration

V. Bossuyt^{1*}, E. Provenzano², W. F. Symmans³, J. C. Boughey⁴, C. Coles⁵, G. Curigliano⁶, J. M. Dixon⁷, L. J. Esserman⁸, G. Fastner⁹, T. Kuehn¹⁰, F. Peintinger^{11,12}, G. von Minckwitz¹³, J. White¹⁴, W. Yang¹⁵, S. Badve¹⁶, C. Denkert¹⁷, G. MacGrogan¹⁸, F. Penault-Llorca¹⁹, G. Viale²⁰ & D. Cameron²¹ of the Breast International Group-North American Breast Cancer Group (BIG-NABCG) collaboration

Table 1. Essential information to be provided to the pathologist with the surgical specimen removed after neoadjuvant systemic therapy

- 5 Clinical tumor size(s) before and after chemotherapy.
The information is best given as size in cm or mm, rather than clinical tumor stage.
Different imaging modalities may provide different sizes.

Imaging modality (mammography/US/MRI) and the chemotherapy cycle number at post-treatment imaging are informative, as are patterns of response (e.g. scattered versus concentric shrinking).

Table 1. Essential information to be provided to the pathologist with the surgical specimen removed after neoadjuvant systemic therapy

- 6 Location of the tumor/tumor bed/residual tumor after chemotherapy.

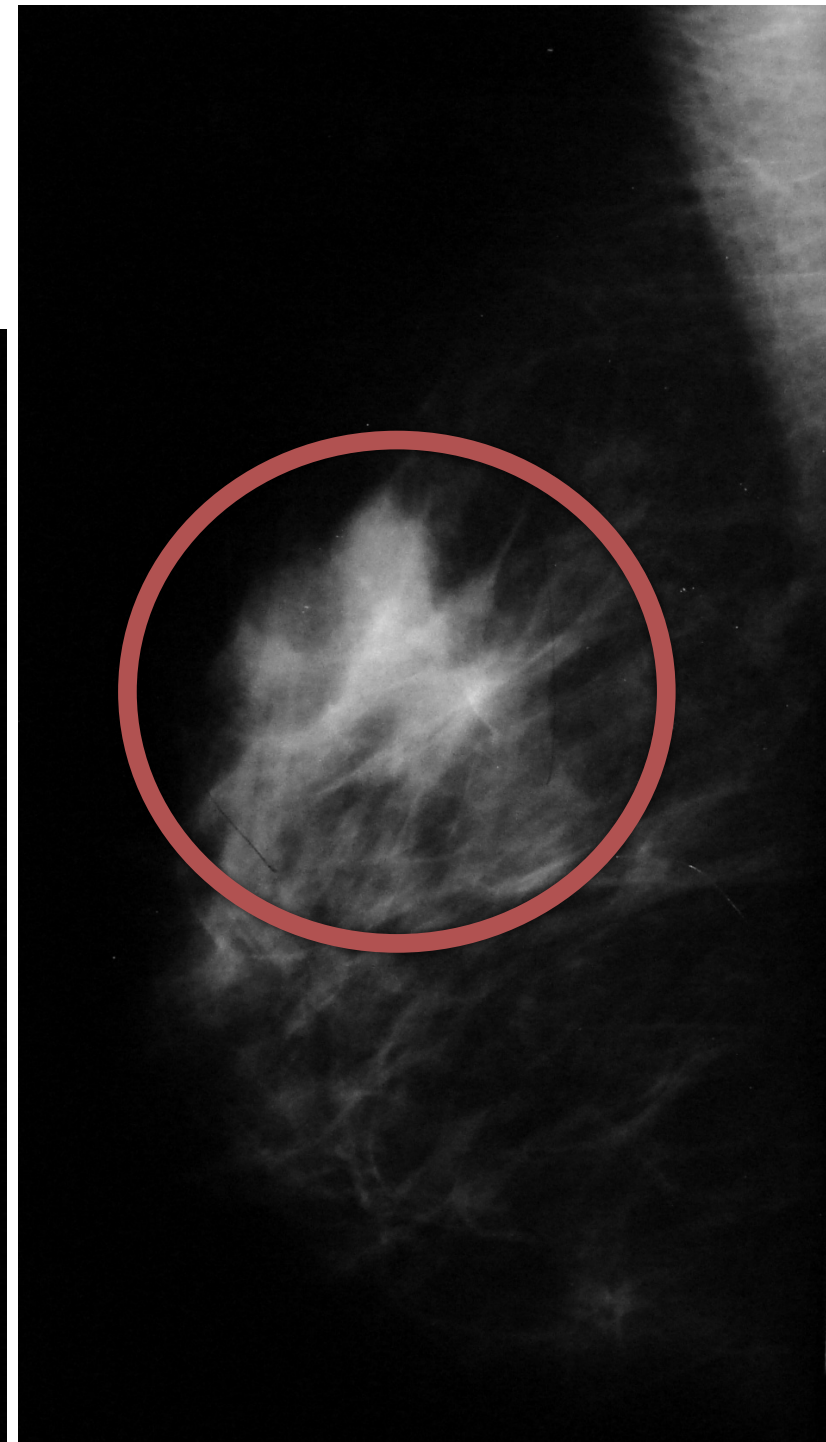
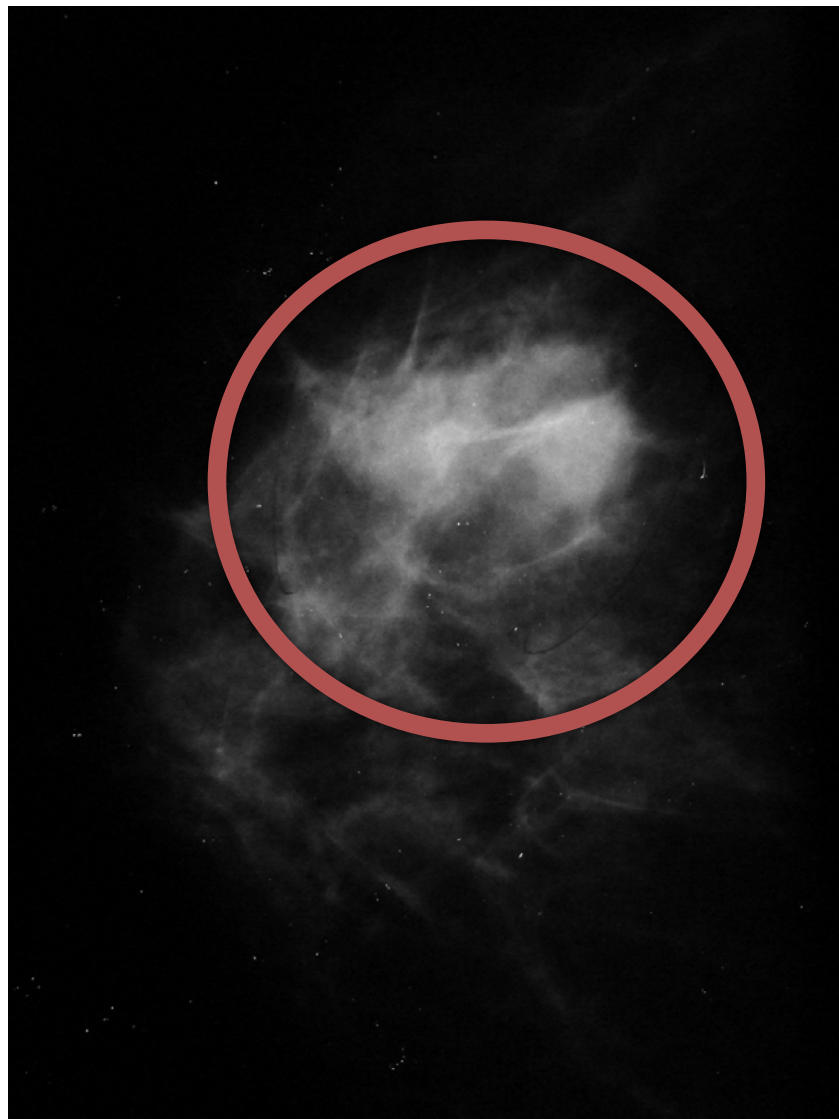
The information is best given in a scheme/drawing.

Specimen radiography can help localize lesions, clips, and calcifications.

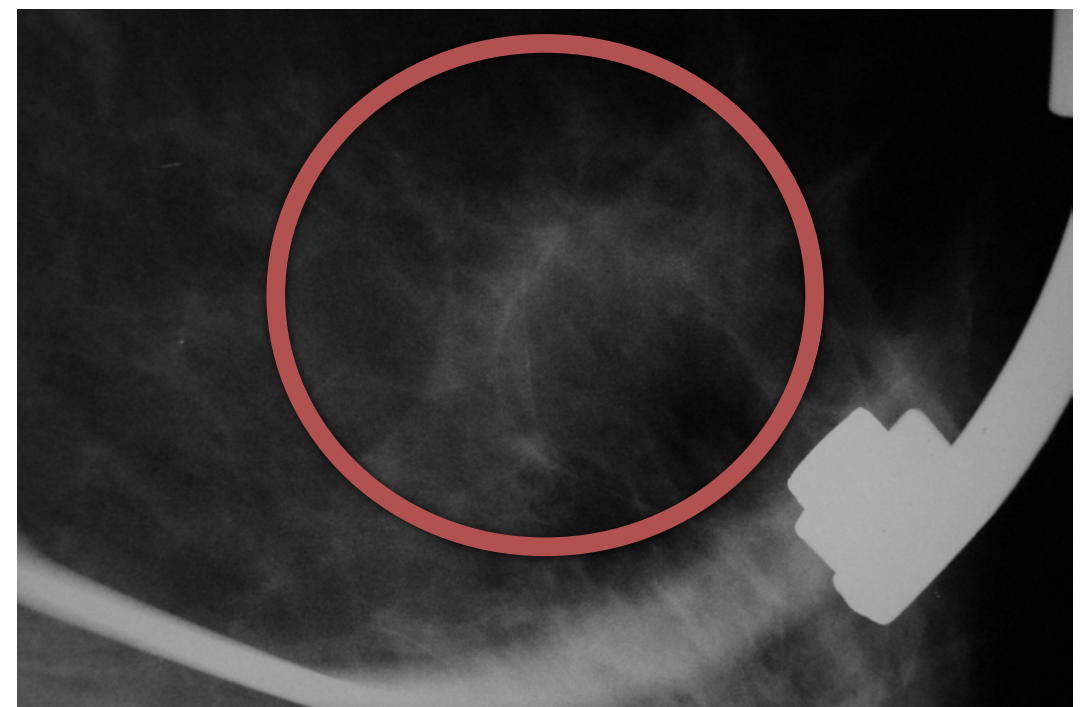
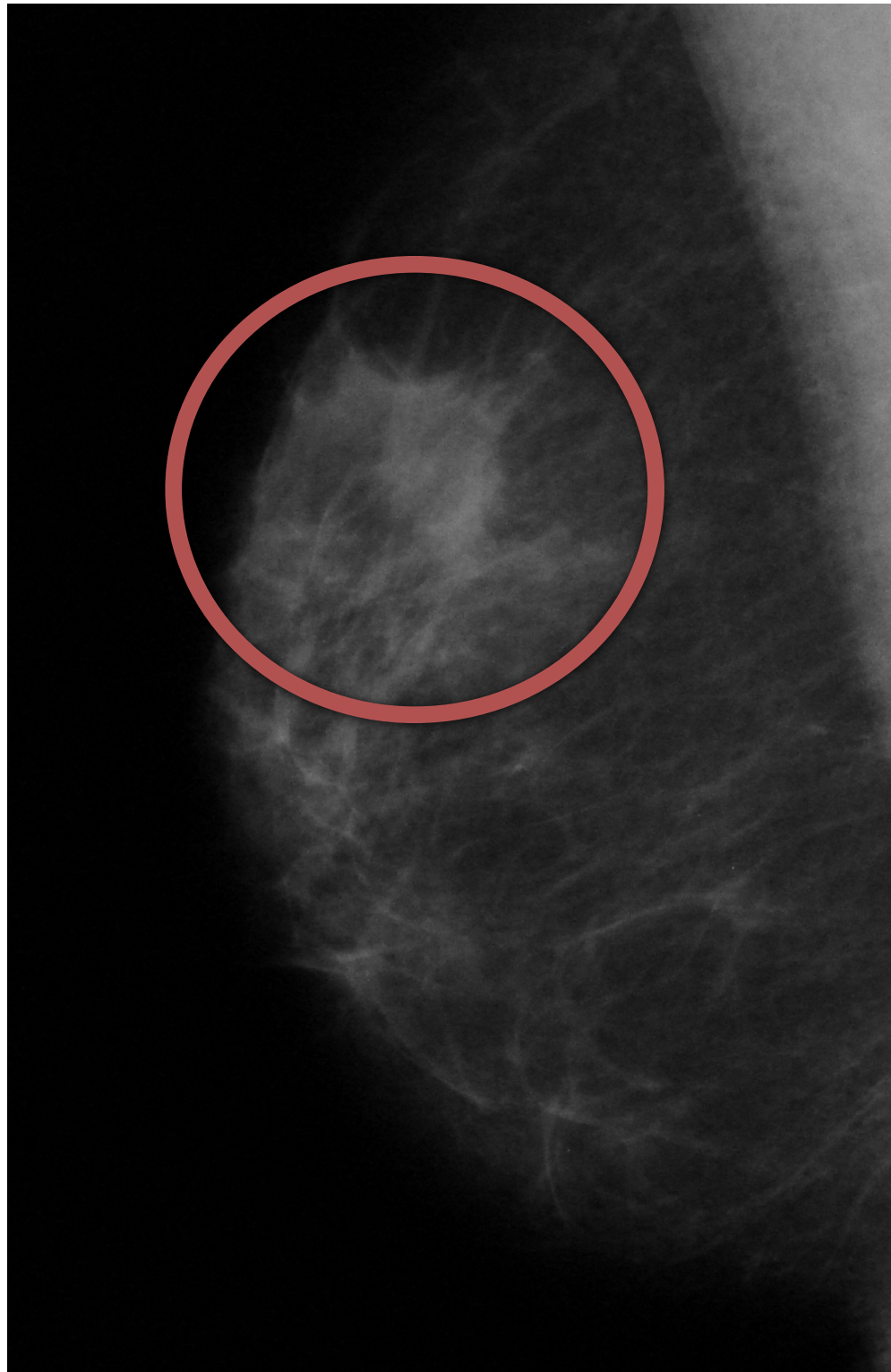
CONTORNOS IRREGULARES EM QSE MAMA DIREITA, MEDINDO 5 x 4,3 cm;

- CORE BIOPSY: CDI, GIII, NÃO ESPECIAL.
- IHC: RE -; RP -;CERB2 -
- QT NEOADJUVANTE (FAC)

NÓDULO MAL DELIMITADO
QSE MAMA DIREITA – B4



- RESPOSTA PARCIAL
- EXAME FÍSICO: SEM NÓDULO PALPÁVEI E AXILA NEGATIVA
- MMG 4 e 5 ciclos: regressão de tamanho e densidade do nódulo, persistindo leve assimetria focal





AP:

LS: NEGATIVO

SETOR: AUSÊNCIA DE
NEOPLASIA RESIDUAL

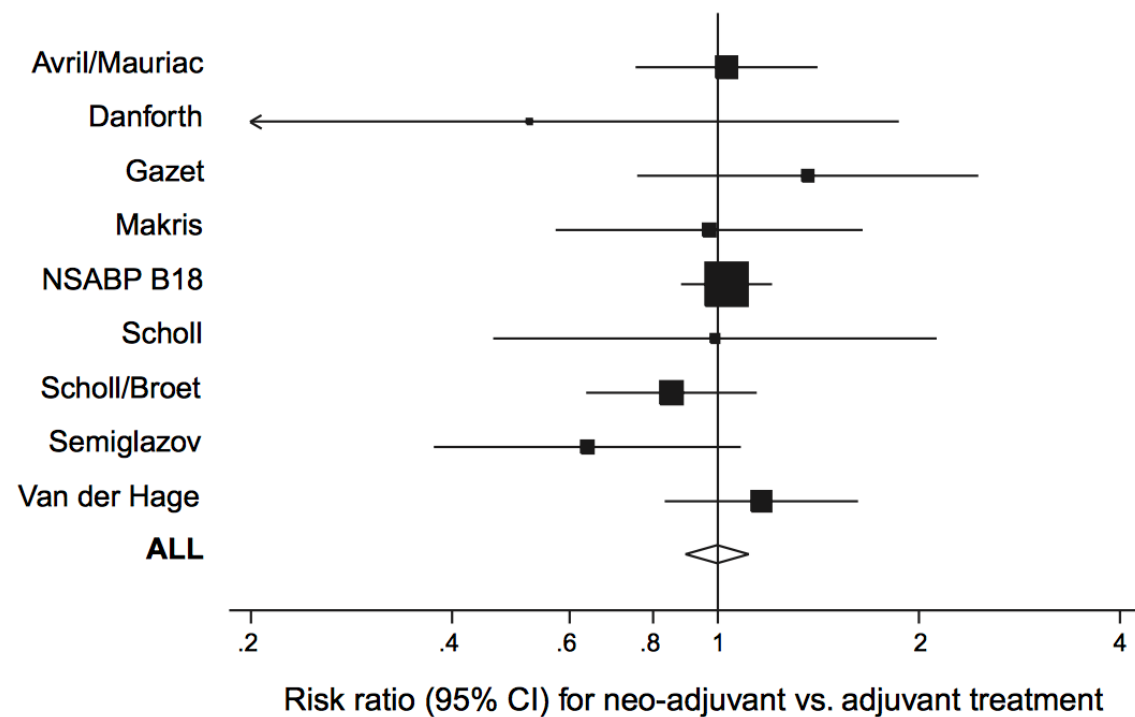


Maior risco de recidiva local?

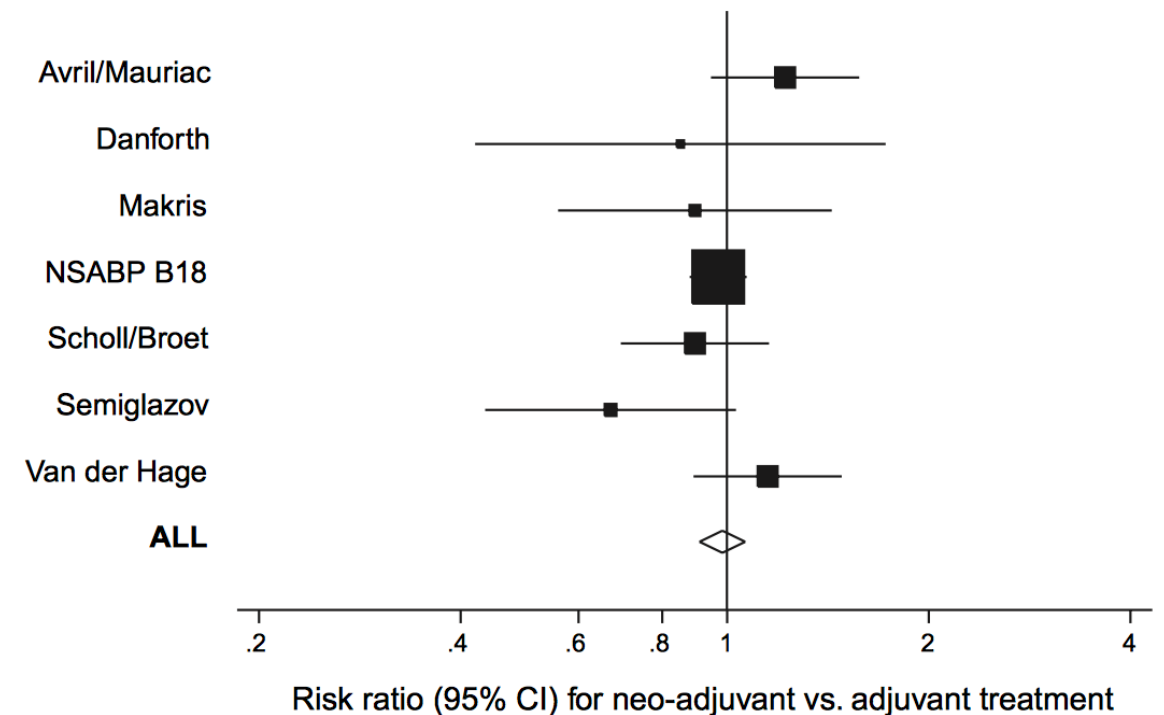
Neoadjuvant Versus Adjuvant Systemic Treatment in Breast Cancer: A Meta-Analysis

Davide Mauri, Nicholas Pavlidis, John P. A. Ioannidis

A Death



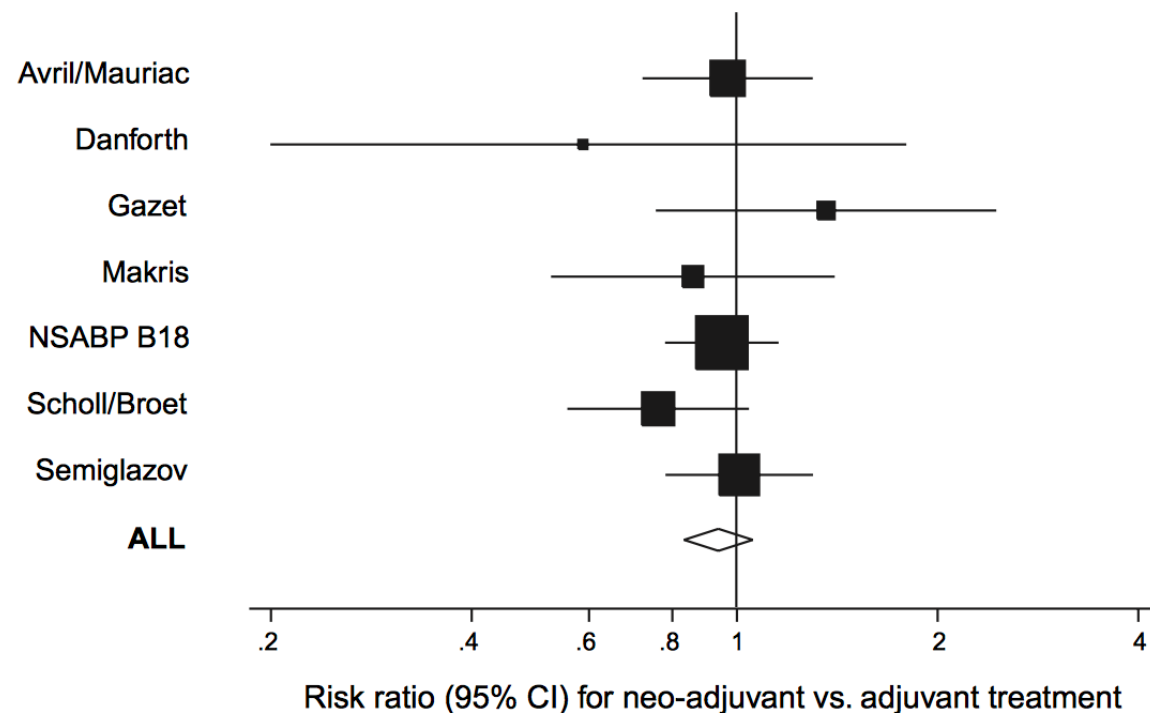
B Disease progression



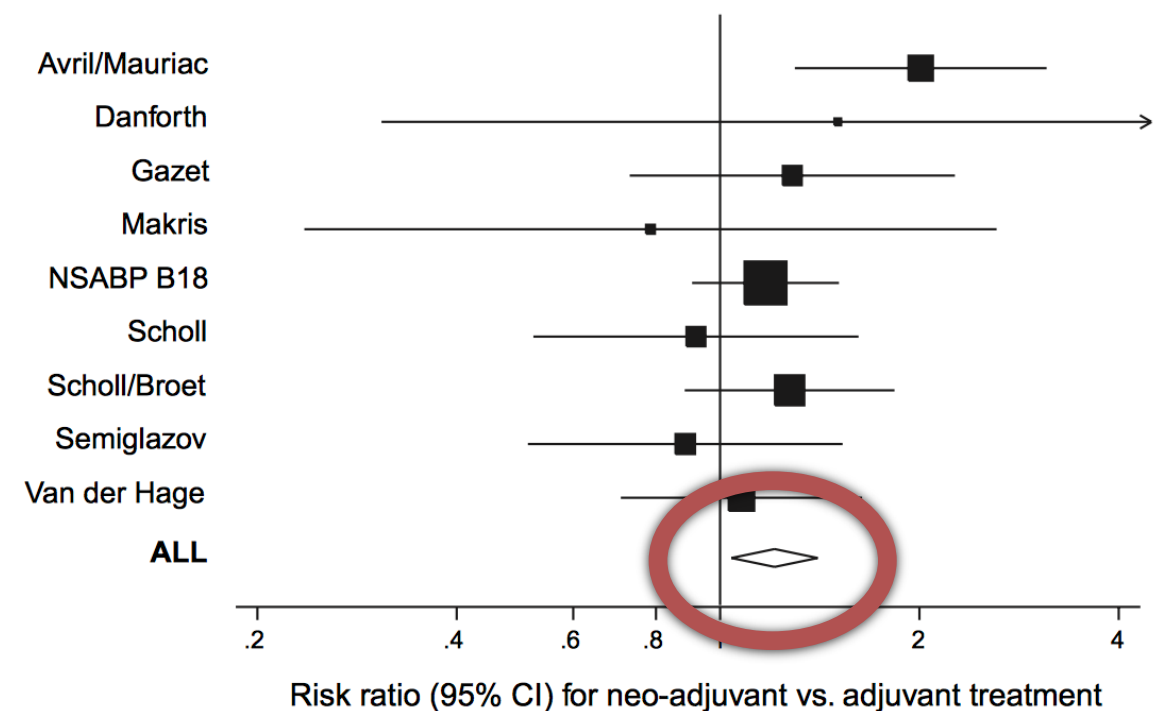
Neoadjuvant Versus Adjuvant Systemic Treatment in Breast Cancer: A Meta-Analysis

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C Distant recurrence



D Loco-regional recurrence



The difference in the results for loco-regional recurrences in the neoadjuvant treatment arms was **less than 5% in seven trials** (8,11,12,15–19), 16.1% in Avril et al. (9), and 5.6% in Broet et al. (14).

Maior risco de recidiva local?

Table 2. Clinical and pathologic response rates of the studies in this meta-analysis in the neoadjuvant arm and local treatment adopted in each arm*

Study (reference)	Clinical response		% pathologic response	Local treatment adopted for breast cancer					
	% Complete	% Partial		No. of neoadjuvant treatment arms			No. of adjuvant treatment arms		
				RT	BSS	M	RT	BSS	M
Avril et al. (9)	33	30	U	44	40	49	—	—	138
Mauriac et al. (10)									
Semiglazov et al. (11)	12†	57†	29†	—	38	99	—	11	123
Scholl et al. (12)	13‡	32‡	U	41	32	22	29	26	31
Scholl et al. (13)	24	42	U	102	62	36	87	60	43
Broet et al. (14)									
Makris et al. (15)	22	61	7	1	132	16	2	111	31
NSABP B-18 (16,17)	36	43	13	—	504	239	—	450	302
Gazet et al. (18)	25	26	U	16	73	11	4	97	9
Van der Hage et al. (8)	7	42	4	—	120§	203§	—	79§	262§
Danforth et al. (19)	65	12	20	—	11	15	—	11	16

*RT = radiotherapy only; BSS = breast-sparing surgery; M = mastectomy; U = unknown rate of pathological response (patients with complete clinical response underwent radiotherapy without any surgery).

[Neoadjuvant therapy](#) was associated with a statistically significant increase in loco-regional disease recurrence (RR 1.22, 95% CI: 1.04, 1.43), **especially when radiotherapy was used without [surgery](#).**

Aumento de 3% no risco de recidiva local.

EBCTCG, Peto, R et al, San Antonio, 2006
NCI, Wood, 2007

Eterno conflito na decisão clínica

Ressecção da
área tumoral
prévia

Maximizar
controle local
e diminuir
carga
tumoral

X

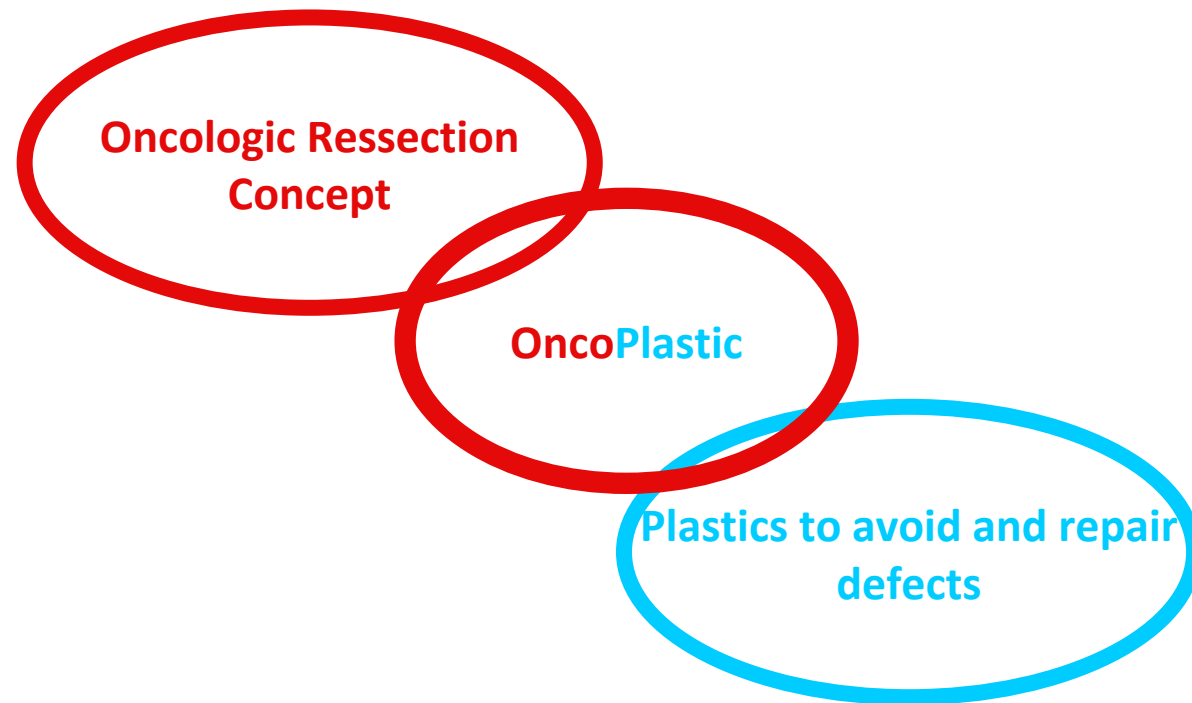
Menor
radicalidade
cirúrgica com
controle
adequado da
doença

Ressecção do tumor
residual - margens
livres

A cirurgia conservadora pós-QT é sempre uma tentativa

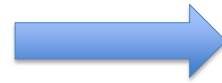
ONCOPLASTIA

Pode solucionar o conflito



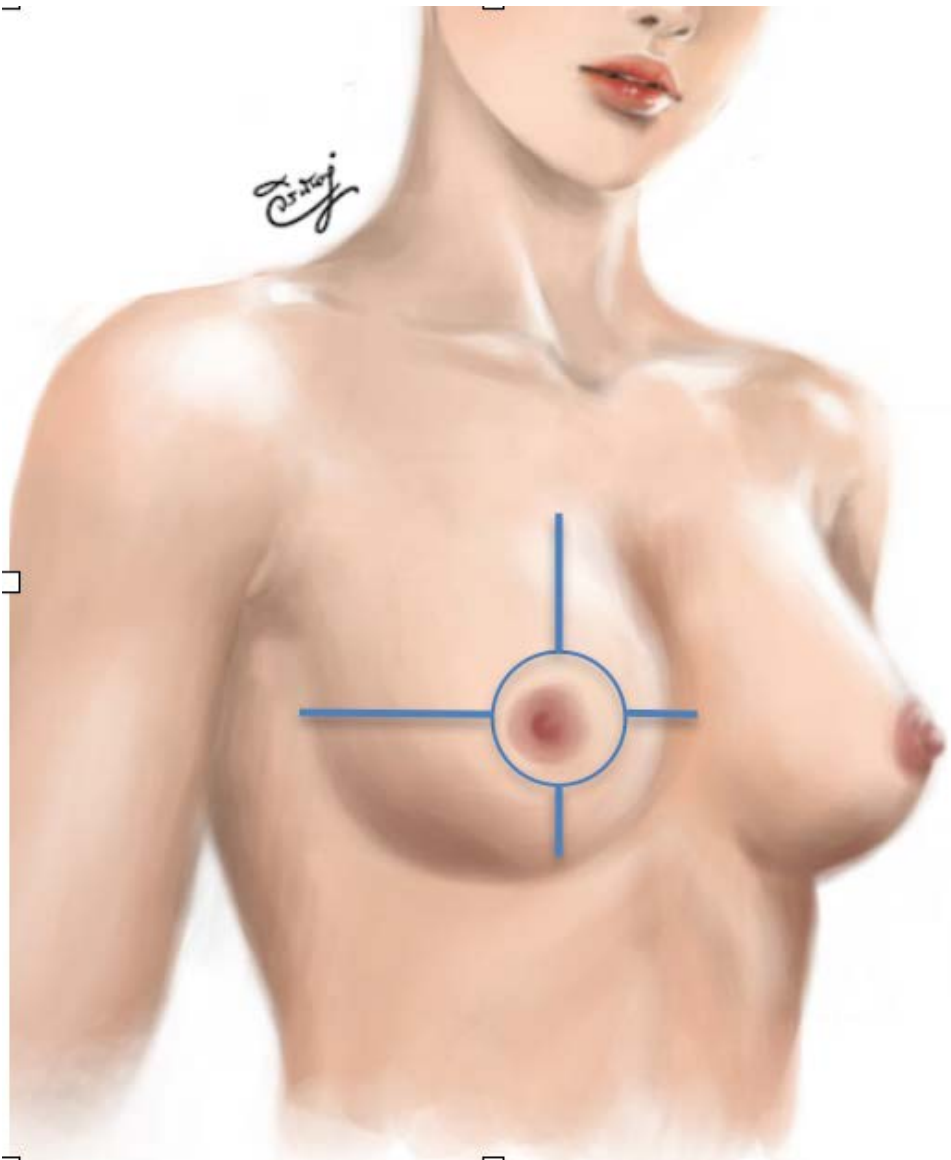
- ✓ A cirurgia não deve ser limitada ao procedimento oncológico, também inclui a reparação sem defeitos.
- ✓ Possibilita maior radicalidade cirúrgica sem perda da cosmese.

Disease location



Areolar pedicle choice

Far away from tumor area



- ✓ Upper
- ✓ Lower
- ✓ Upper inner
- ✓ Central
- ✓ Combined

Oncoplastic Techniques Allow Extensive Resections for Breast-Conserving Therapy of Breast Carcinomas

Krishna B. Clough, MD,* Jacqueline S. Lewis, FRCS,* Benoit Couturaud, MD,* Alfred Fitoussi, MD,* Claude Nos, MD,* and Marie-Christine Falcou†

Because the en-bloc specimen was removed as a mammoplasty, there was frequently a much wider rim of normal tissue around the tumor.

Annals of Surgical Oncology
January 2014, Volume 21, Issue 1, pp 93-99

Date: 01 Oct 2013

Local Recurrence Patterns in Breast Cancer Patients Treated with Oncoplastic Reduction Mammoplasty and Radiotherapy

Bree R. Eaton MD, Albert Losken MD, Derick Okwan-Duodu MD, PhD, David M. Schuster MD, Jeffrey M. Switchenko PhD, Donna Mister, Karen Godette MD, Mylin A. Torres MD



Conclusions

The use of ORM yields acceptable rates of IBTR. ORM may displace breast tissue and surgical clips to breast quadrants outside of the original tumor location, but the majority of IBTRs still occur in the original tumor quadrant. This area remains at highest risk of in-breast recurrence in women treated with ORM irrespective of surgical clip location.

MAMOPLASTIAS ONCOLÓGICAS REDUTORAS PÓS QUIMIOTERAPIA NEOADJUVANTE

HOSPITAL NOSSA SENHORA DA CONCEIÇÃO - PORTO ALEGRE

IHQ	TN	Margens	Resposta QT neo	Recidiva LR (meses)	Mtx(meses)	Seguimento(meses)	Óbito
Luminal B	T3N1	>1cm	Parcial	-	12 óssea	27	Sim
TN	T3N2	>1cm	Parcial	Pele 19	19 SNC	29	Sim
TN	T4N1	>1cm	Completa	-	-	67	Sim*
TN	T2N1	>1cm	Completa	-	-	75	Não
TN	T2N1	>1cm	Completa	-	12 SNC	18	Sim
Luminal B	T3N2	1cm	Parcial	FSC 22	32 Hep/óssea	56	Não
Her2+	T3N0	>1cm	Completa	-	-	54	Não
Her2+	T1N0	>1cm	Parcial	-	-	36	Não
Luminal B	T3N0	0,4cm	Parcial	-	-	38	Não
RH,Her2+	T2N0	>1cm	Completa	-	-	34	Não
TN	T4N2	>1cm	Completa	-	-	25	Não
TN	T3N0	>1cm	Completa	-	-	24	Não
Luminal B	T1N2	>1cm	Completa	-	-	27	Não
Luminal B	T2N1	1cm	Parcial	-	-	24	Não
TN	T2N1	>1cm	Completa	Mama 28	-	32	Não
Her2+	T3N1	>1cm	Completa	-	-	18	Não
Her2+	T2N1	>1cm	Completa	-	12 SNC	14	Sim
Luminal B	T3N1	>1cm	Ausente	-	-	19	Não
TN	T2N0	>1cm	Parcial	-	-	23	Não

IHQ = imuno-histoquímica; TC = triplo negativo; TN = estadiamento clínico; SNC + sistema nervoso central; Hep = hepática *OC = outras causas.

29 anos, nódulo 4 cm, axila negativa.

Tentativa frustrada de conduta conservadora.

QT neo AC+T:

Resposta parcial, **mastectomia** (setor com margens comprometidas).

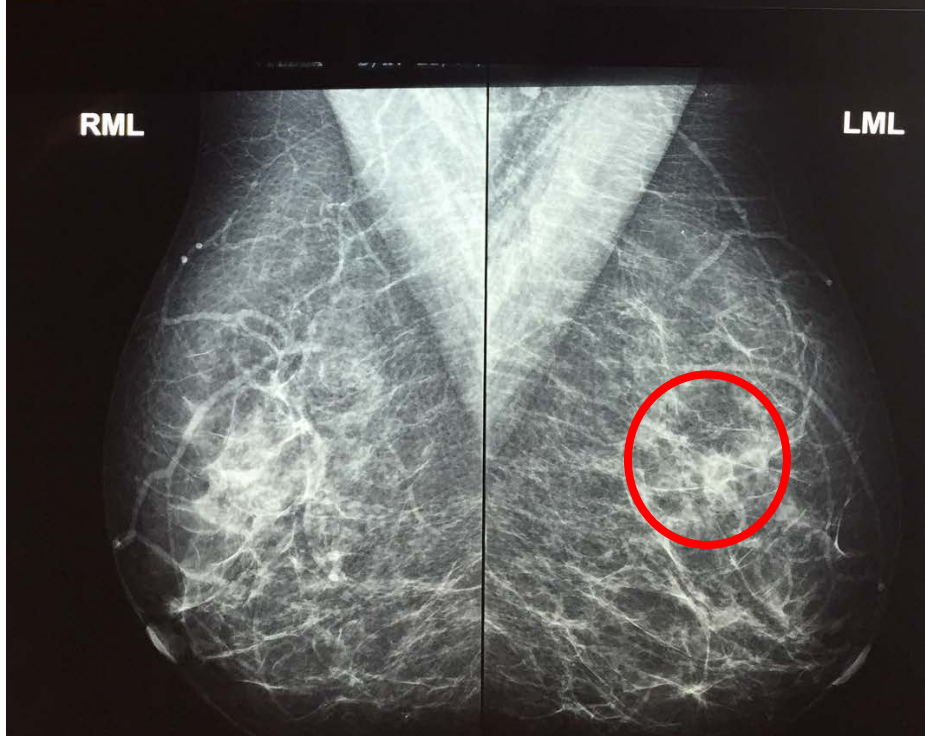
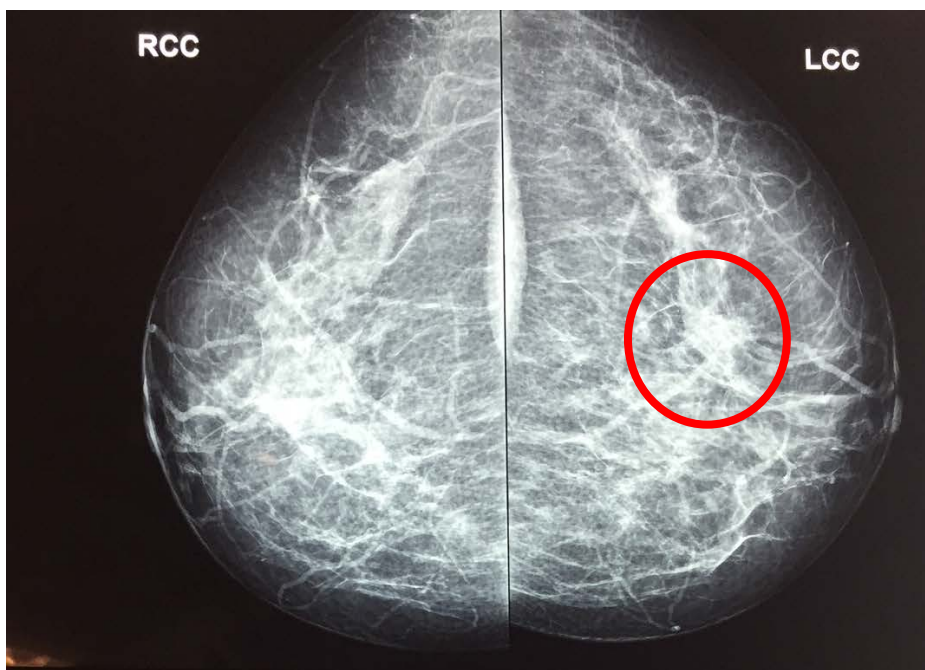
AP: CLI, 2,5 cm; G1; LS neg; luminal A.

2 recidivas locais sem metástases:

1 - pós-mastectomia e reconstrução – retalho TRAM monopediculado, reconstrução CAM.

2 – pós- retalho TRAM – retalho grande dorsal e prótese.

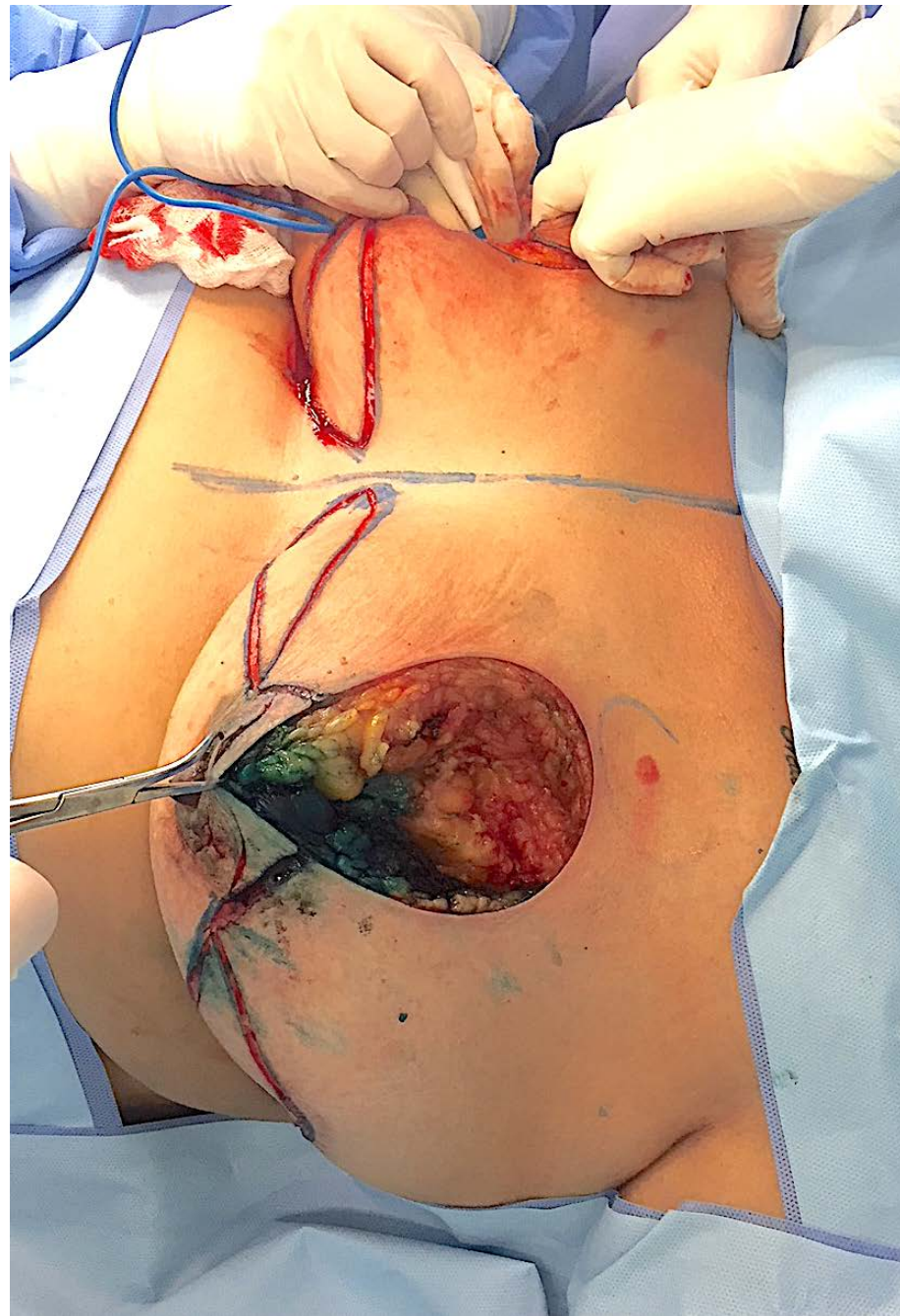
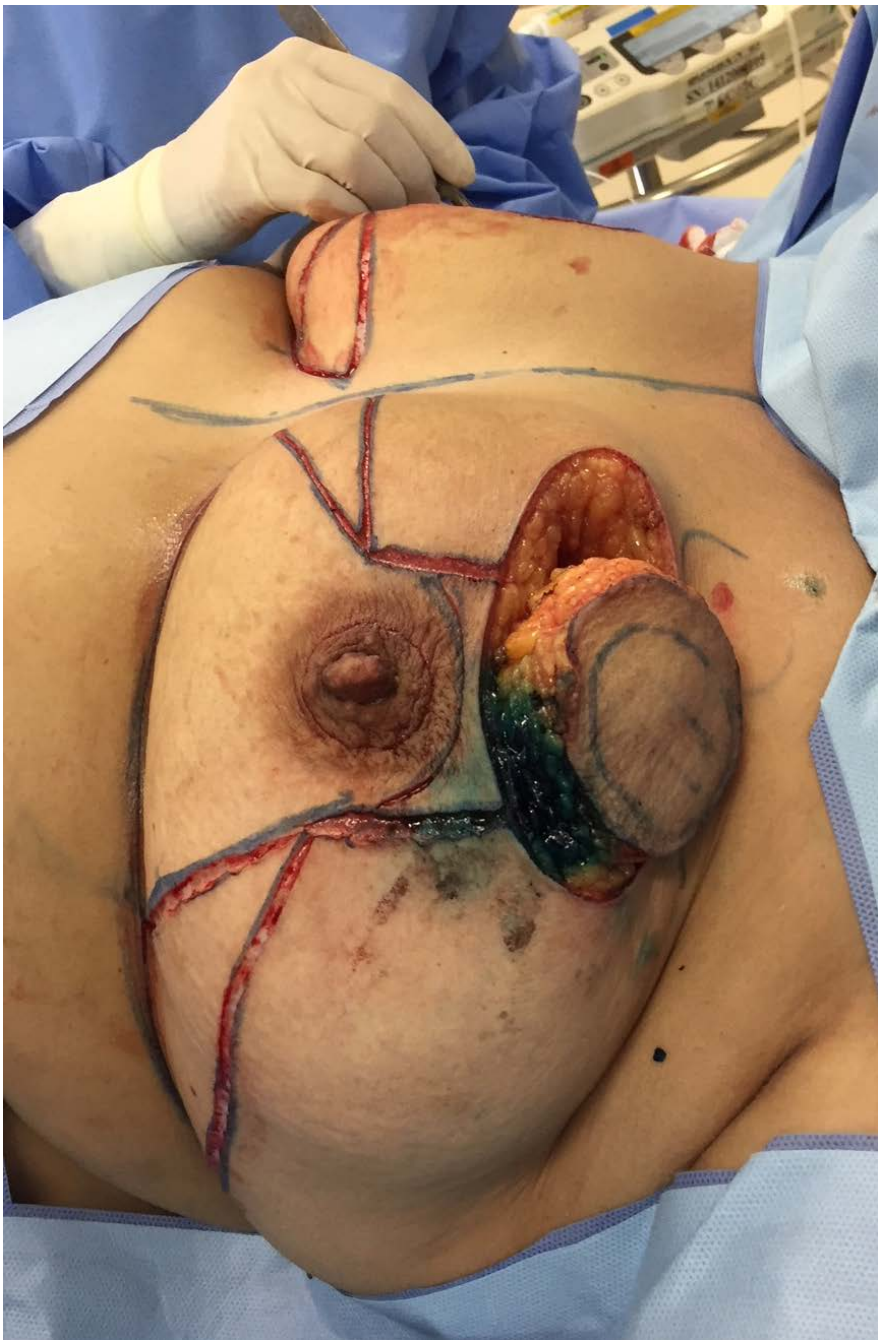




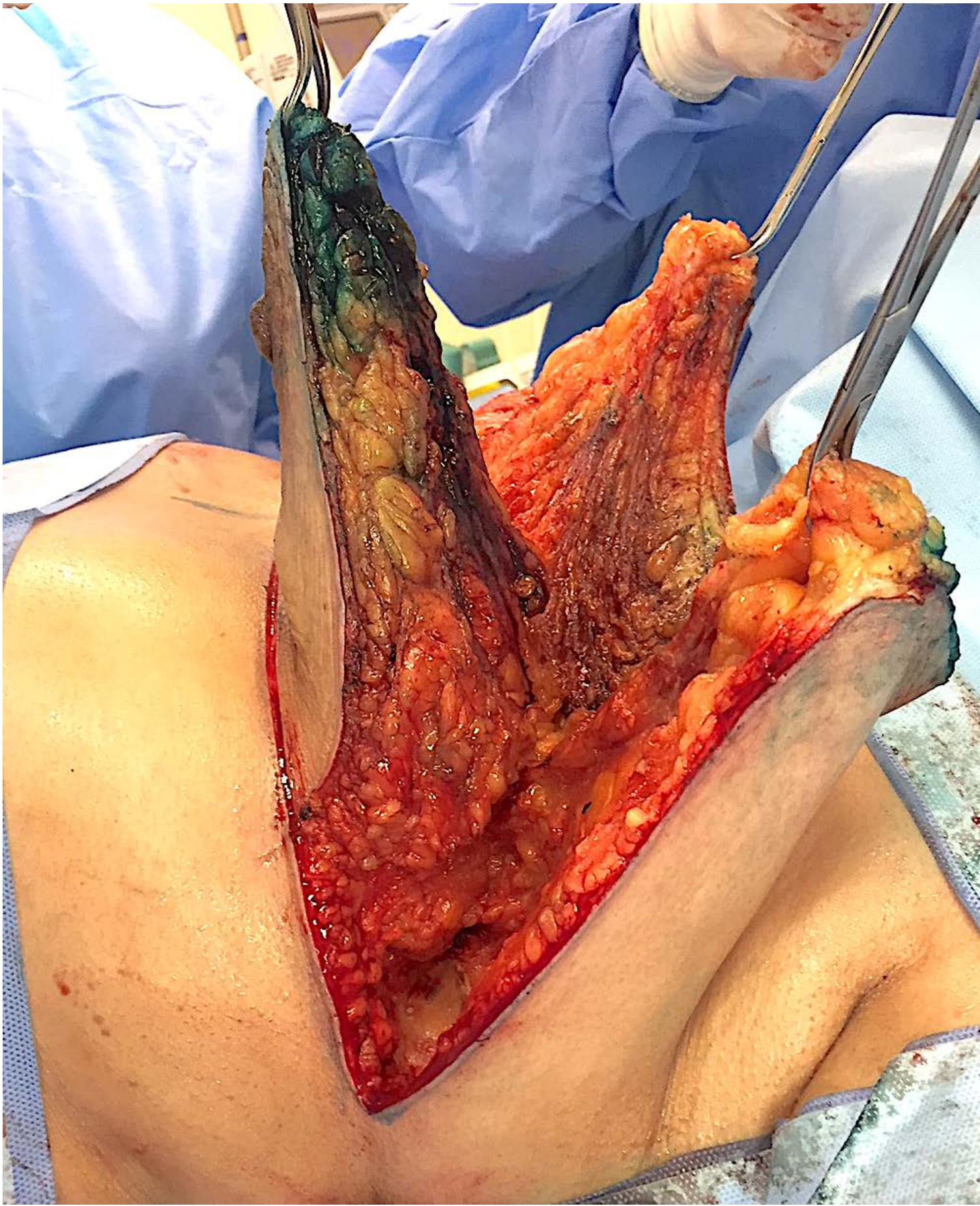
47 years old
Palpable lump upper quadrants
Core-biopsy: IDC, G2, luminal B

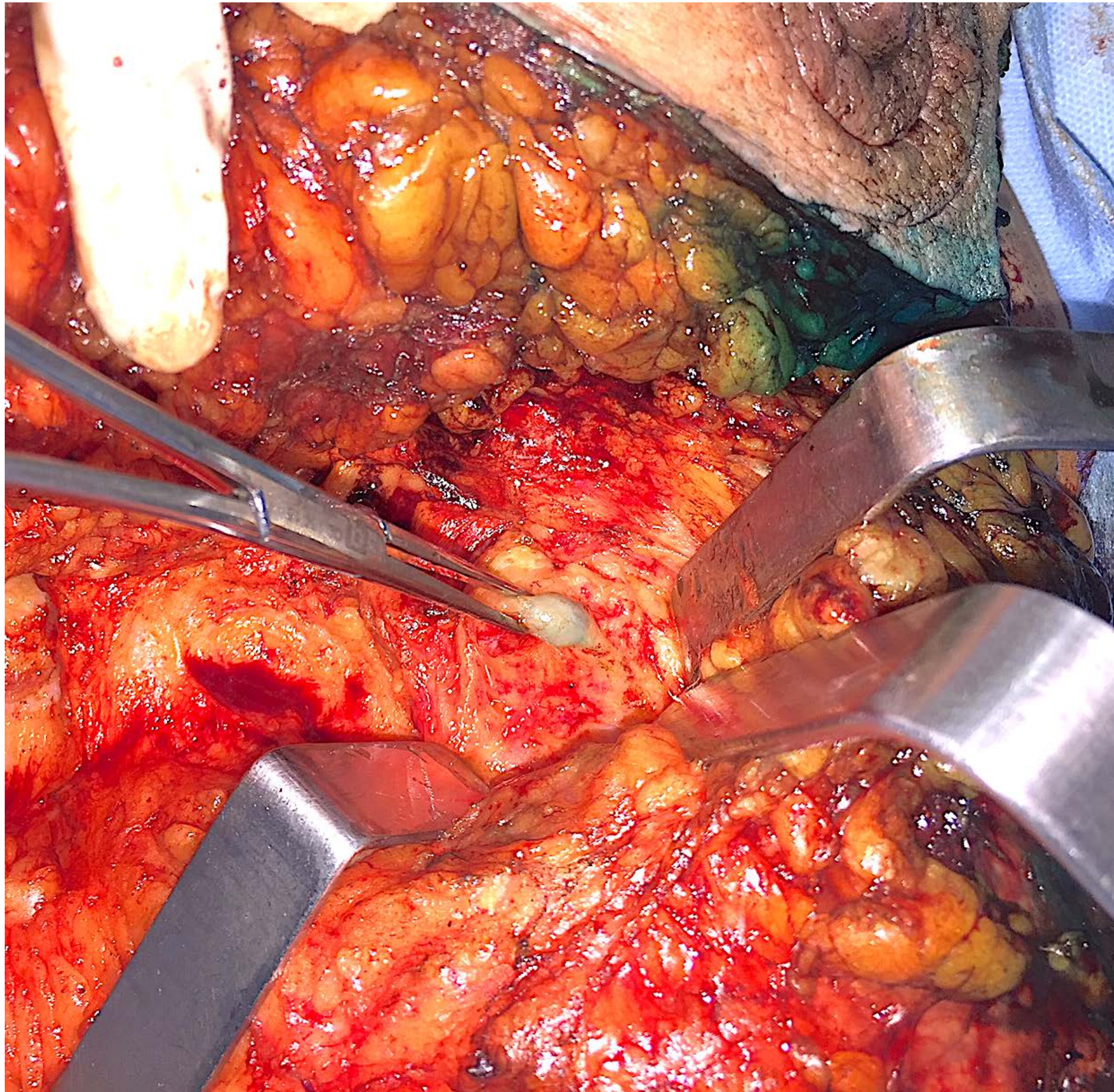
NAC anthracycline 3 cycles - **progression** - surgery indicated

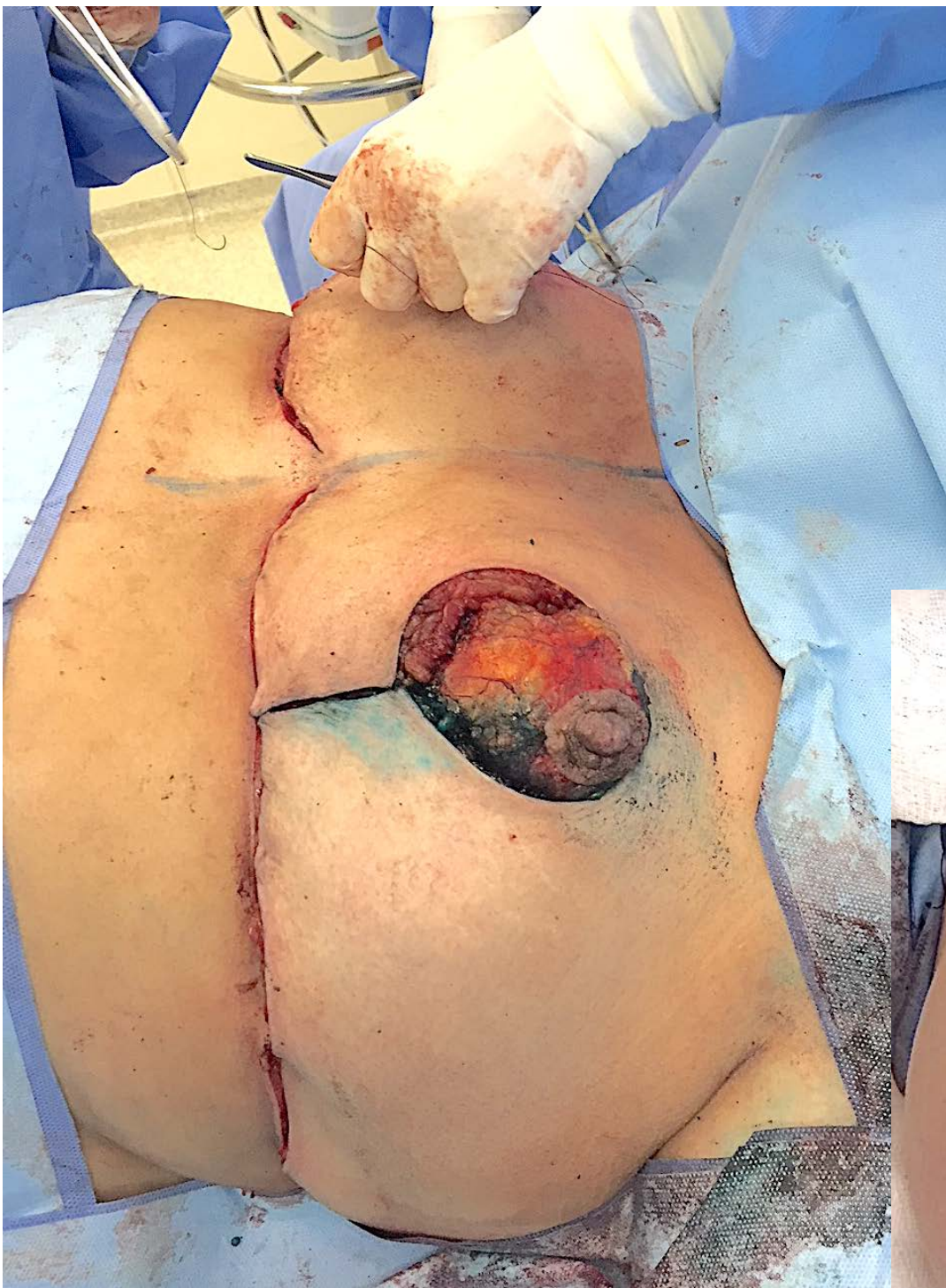




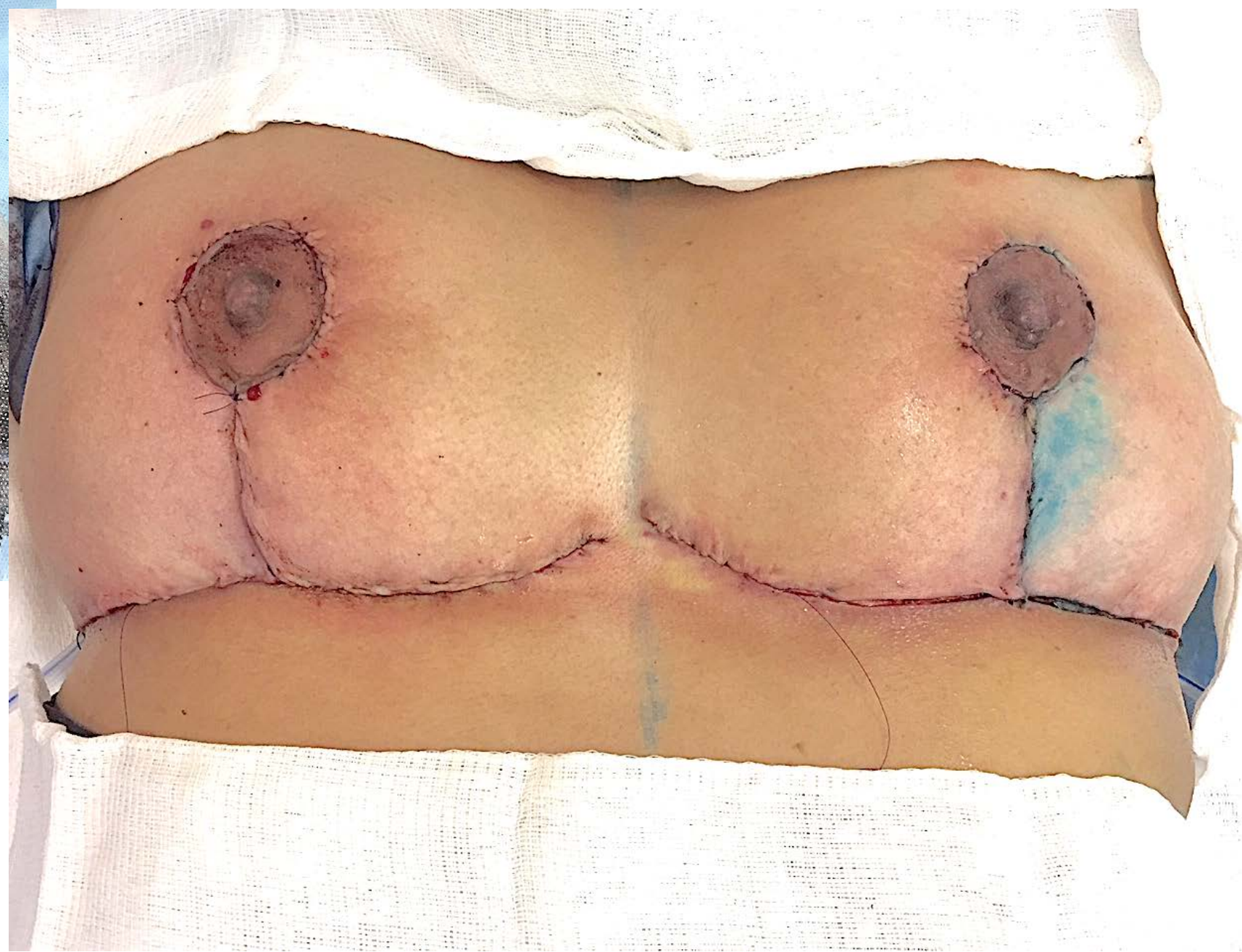








IDC; 28 mm; G2; free margins >10 mm, Luminal B, SL negative.



50 anos
Mamoplastia redutora prévia
Nódulo 30 mm QSE D
NÃO DESEJAVA QT NEO



CDI; G2; 29 mm; margens livres;
2 LS negativos.

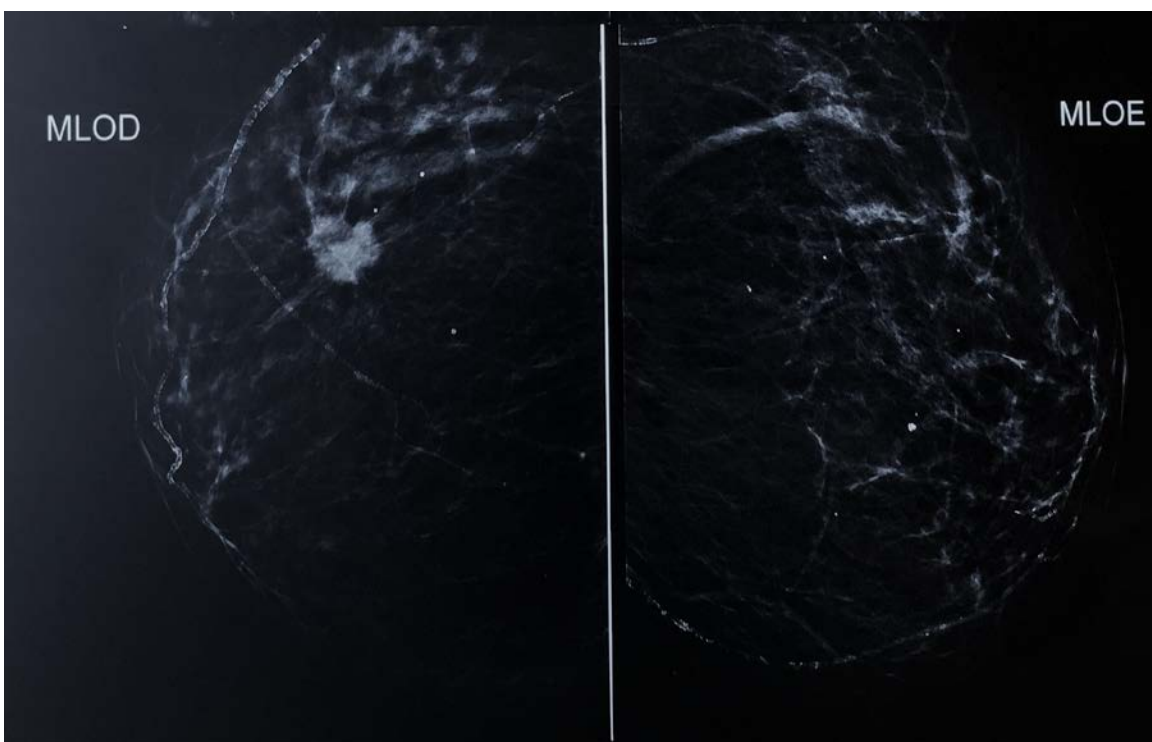


76 years

Nódulo 15 mm JQS D **há anos**.

MMG/ECO: Nódulo espiculado, mal delimitado, 21 X 12 X 13, BIRADS 5

Core-biopsy: CDI, luminal A



CDI, G1; 31mm, margens livres, LS (0/2)
RE/RP positivos, Her2 negativo, Ki67 10%



Oncoplastia - oportunidade de conciliar ambos objetivos

Ressecção da
área tumoral
prévia

Maximizar
controle local
e diminuir
carga
tumoral

X

Menor
radicalidade
cirúrgica com
controle
adequado da
doença

Ressecção do tumor
residual - margens
livres

Conclusões

- Não esquecer que se tratam de doenças não iniciais com alto risco de recidiva não só local como à distância.
- Controle à distância também significa controle local (QT e HT).
- A marcação pré-QT inclui marcadores na pele, cliques, exames de imagem e exame físico.
- Tão importante quanto a marcação do tumor pré-QT é diagnosticar o padrão e extensão do tumor residual pós-QT.
- A extensão da ressecção depende do padrão e extensão do tumor residual, **margens livres**.
- Considera-se um pequeno aumento no risco de recidiva local, sem impacto na sobrevida global ou progressão da doença.
- A cirurgia conservadora pós-QT é sempre uma **TENTATIVA** que a validade será confirmada ou não pelo AP definitivo.
- A cirurgia oncoplástica é uma excelente ferramenta, inclusive para mudar a estratégia e voltar à cirurgia primária.

Atlas of Breast Reconstruction

Mario Rietjens
Mario Casales Schorr
Visnu Lohsiriwat

Forewords by
Umberto Veronesi and
Jean Yves Petit

 Springer

