

Oncoplastic Level I and II

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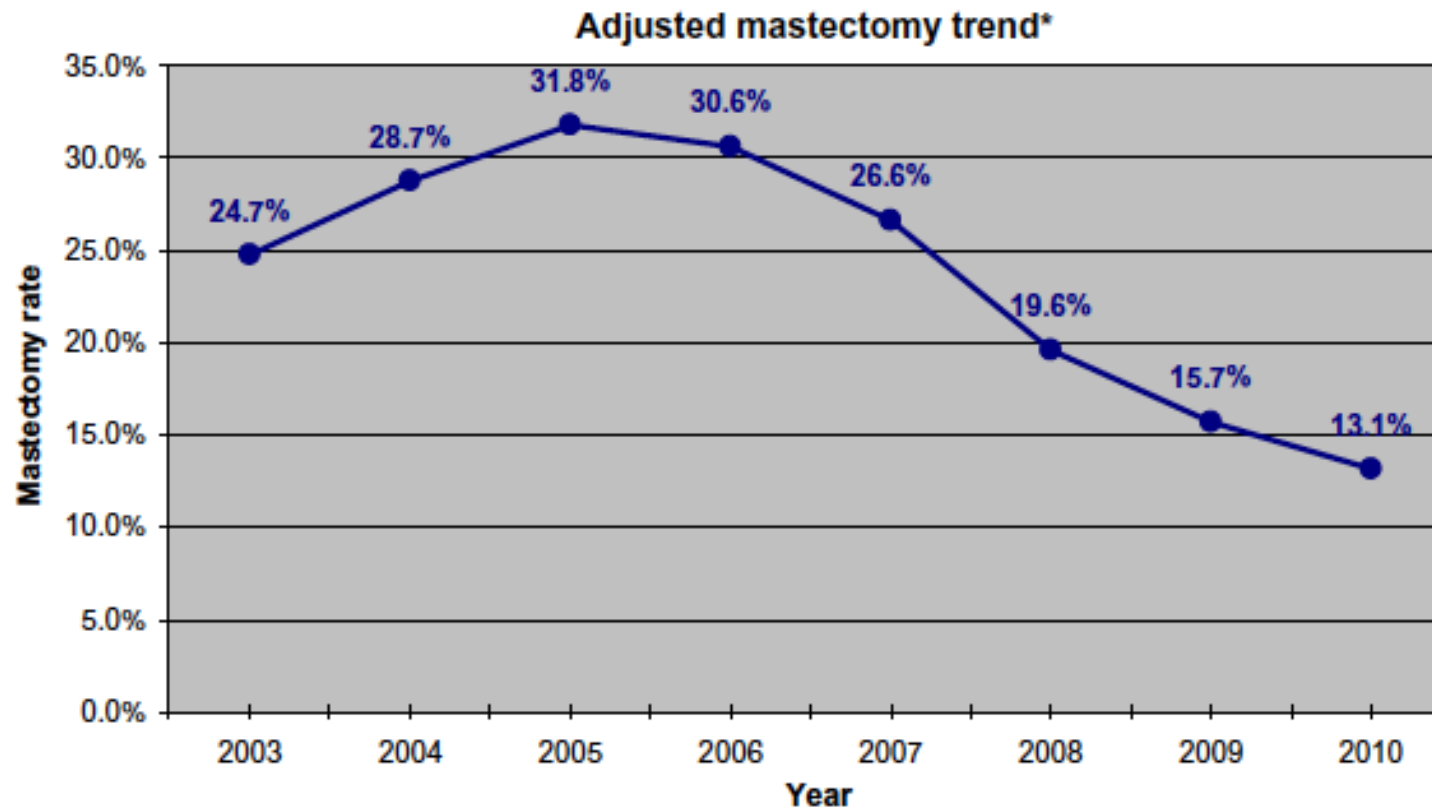
www.meduniwien.ac.at/brustzentrum-chirurgie

Disclosures

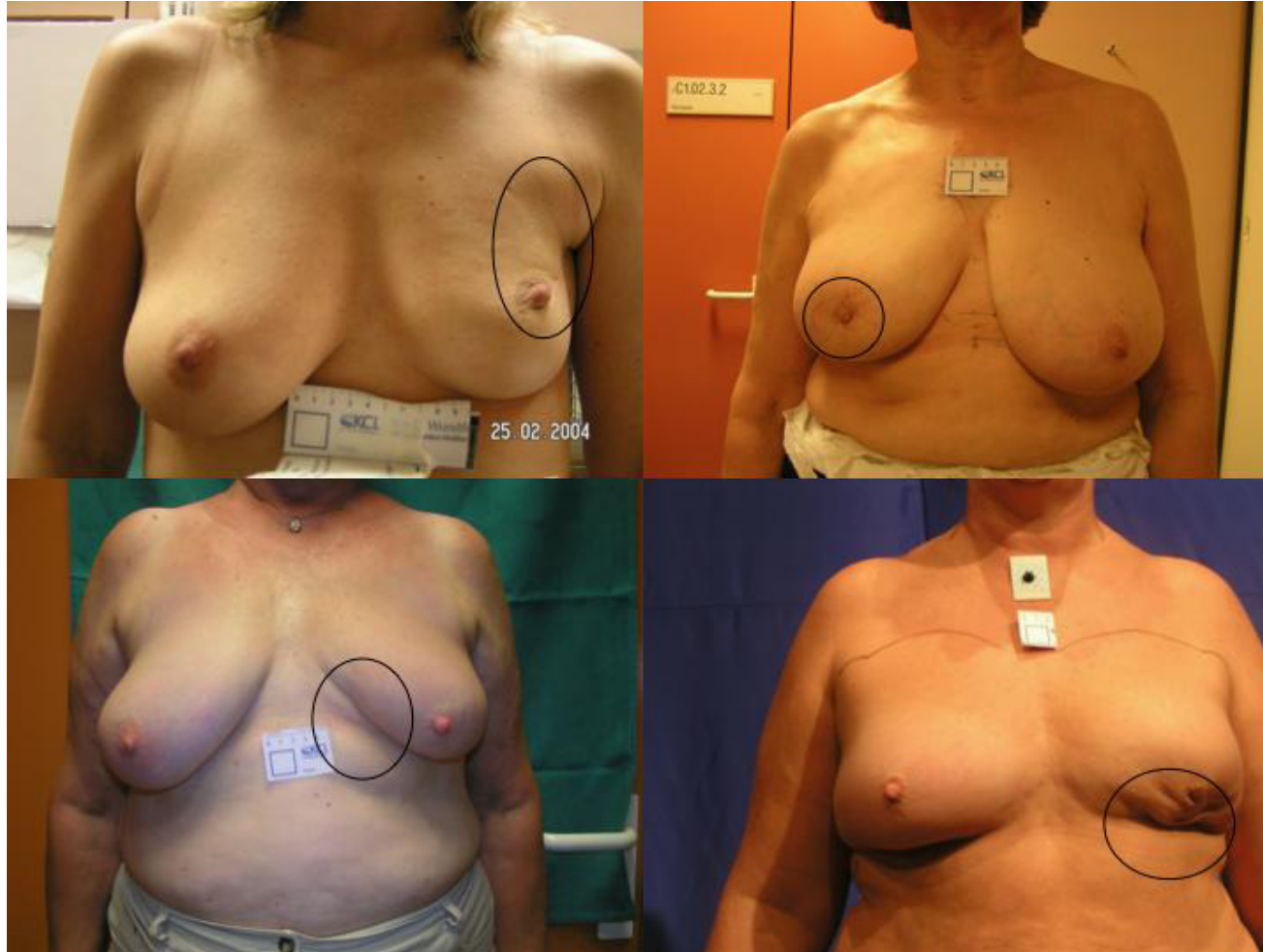
- Covidien, Astra Zeneca, Novartis, Springer, Myriad, Nanostring, Roche
 - research funding
 - Advisory board
 - Travel grants
 - Editor: Oncoplastic Surgery

Mastectomy rates EUSOMA

There is a continuous reduction of mastectomies in Europe

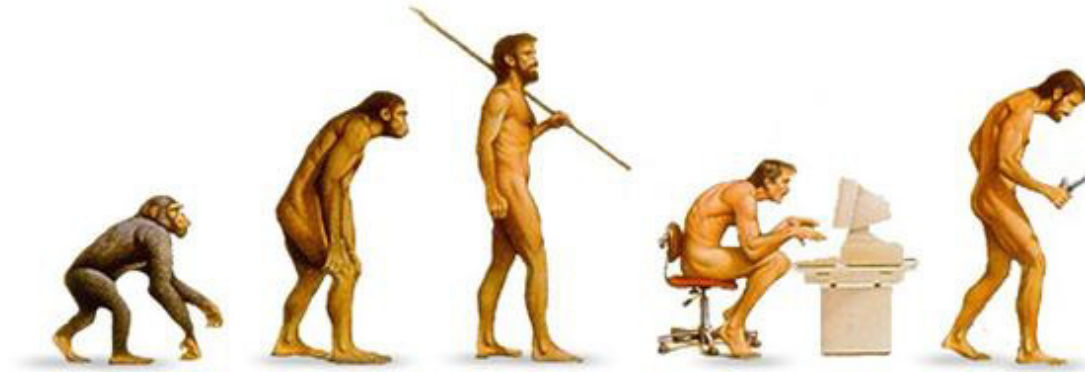


Bad results of BCT

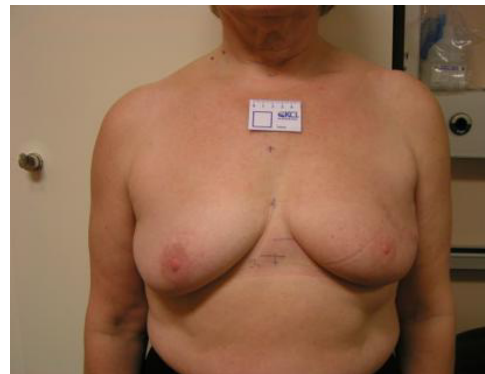


**Oncoplastic Surgery is the
resection of the tumor with
immediate or late reconstruction
of the breast defect**

The evolution of Breast Surgery



20%
Mastectomy



60%
Breast Conservation



20%
Oncoplastic

TYP I Parenchymal Flaps

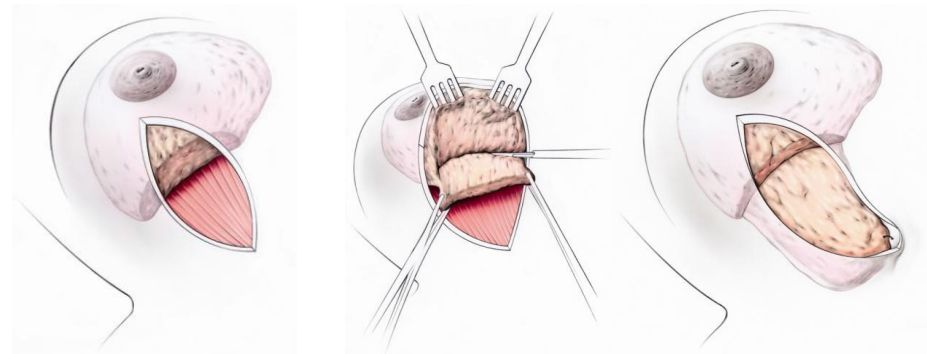
- Batwing



- Doughnut



- In breast flaps



BATWING



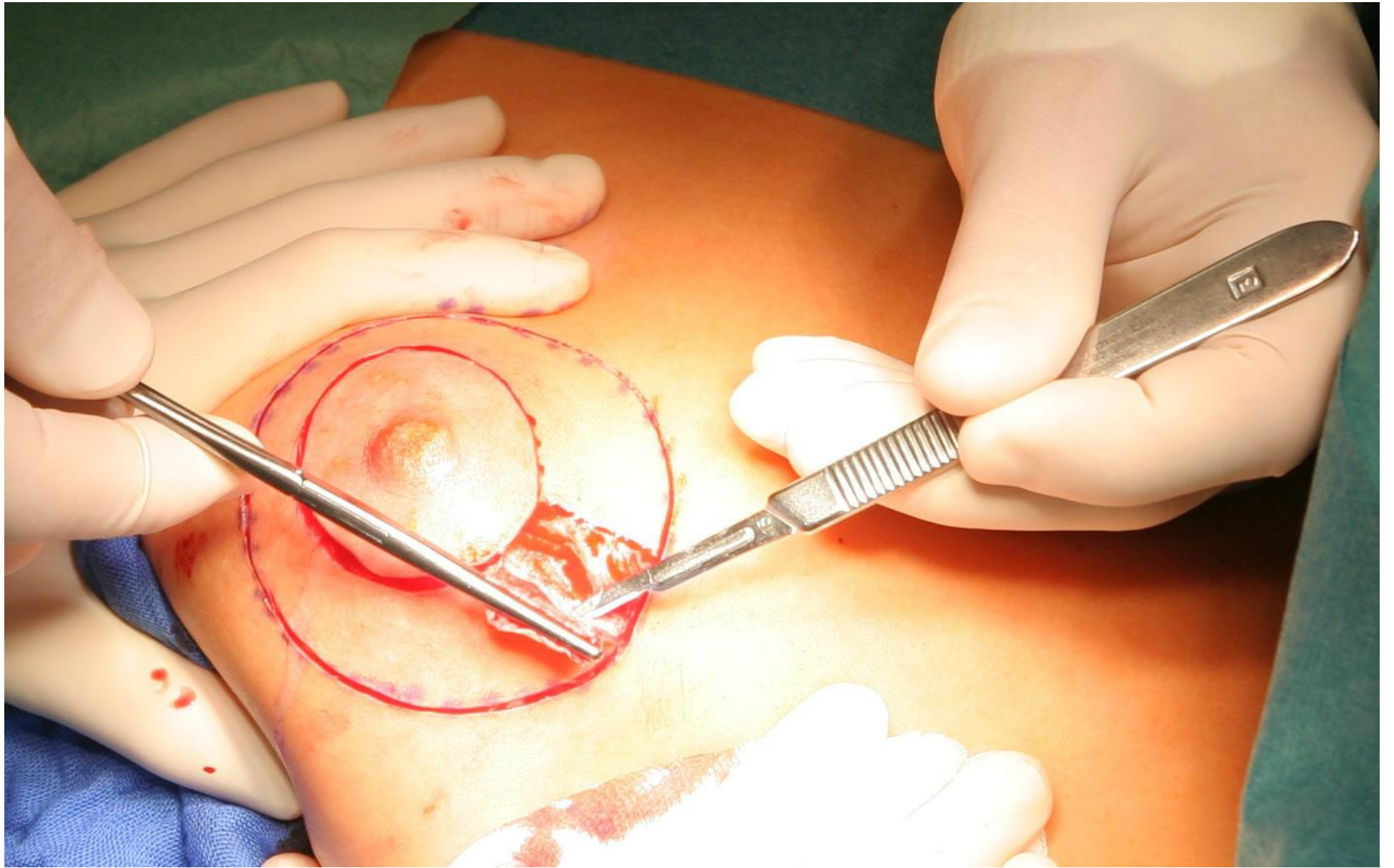
BATWING

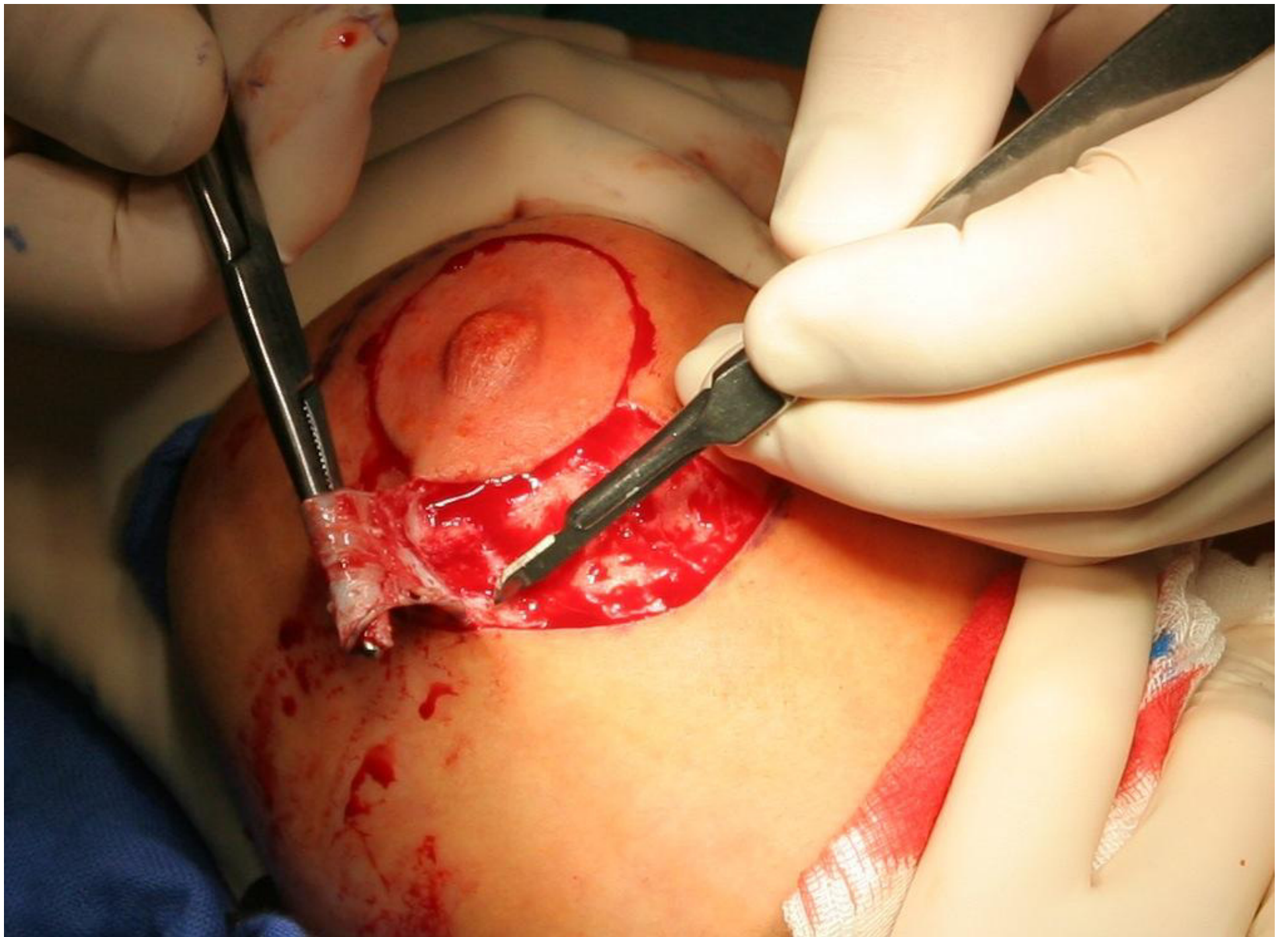


Doughnut

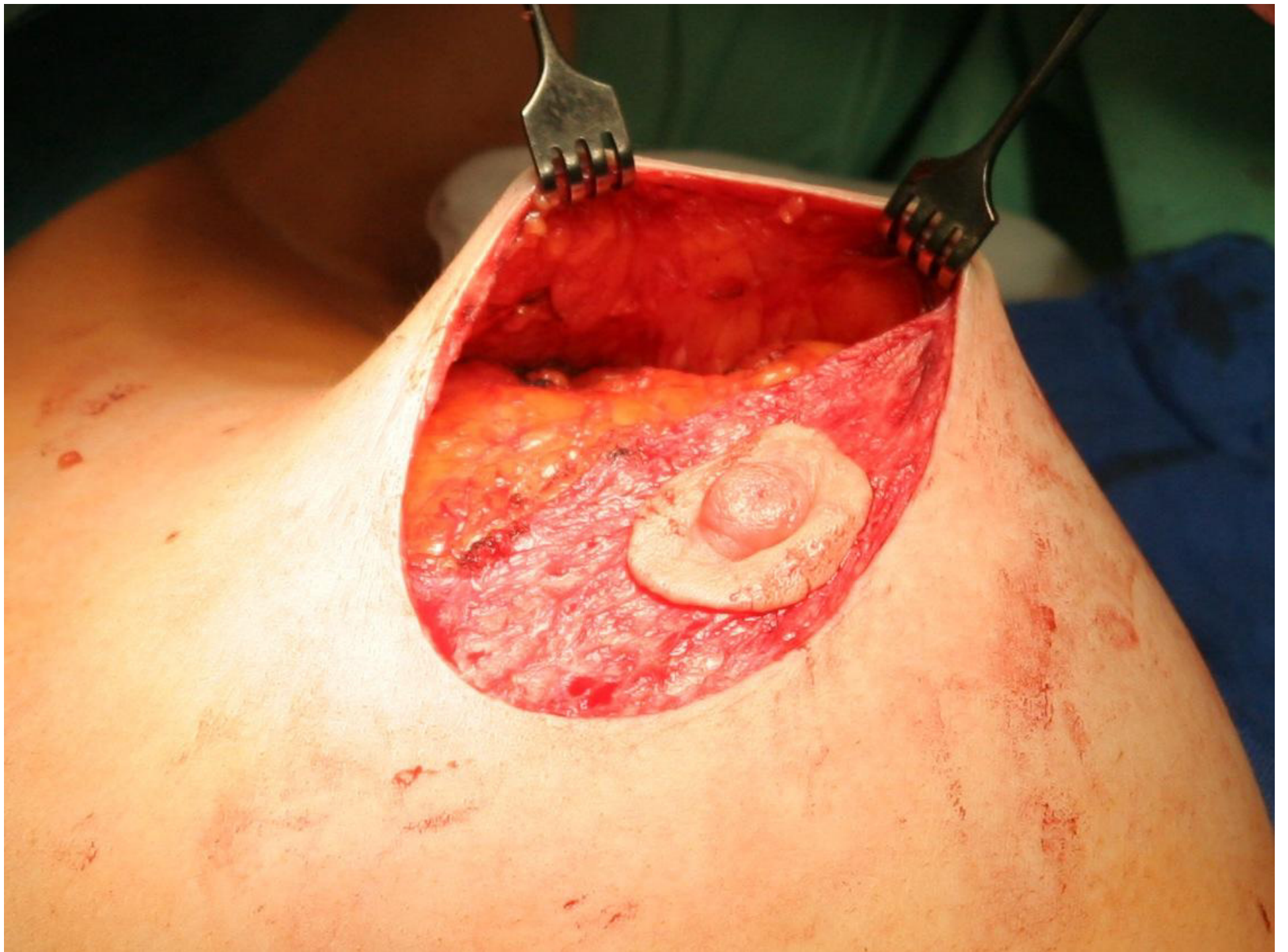


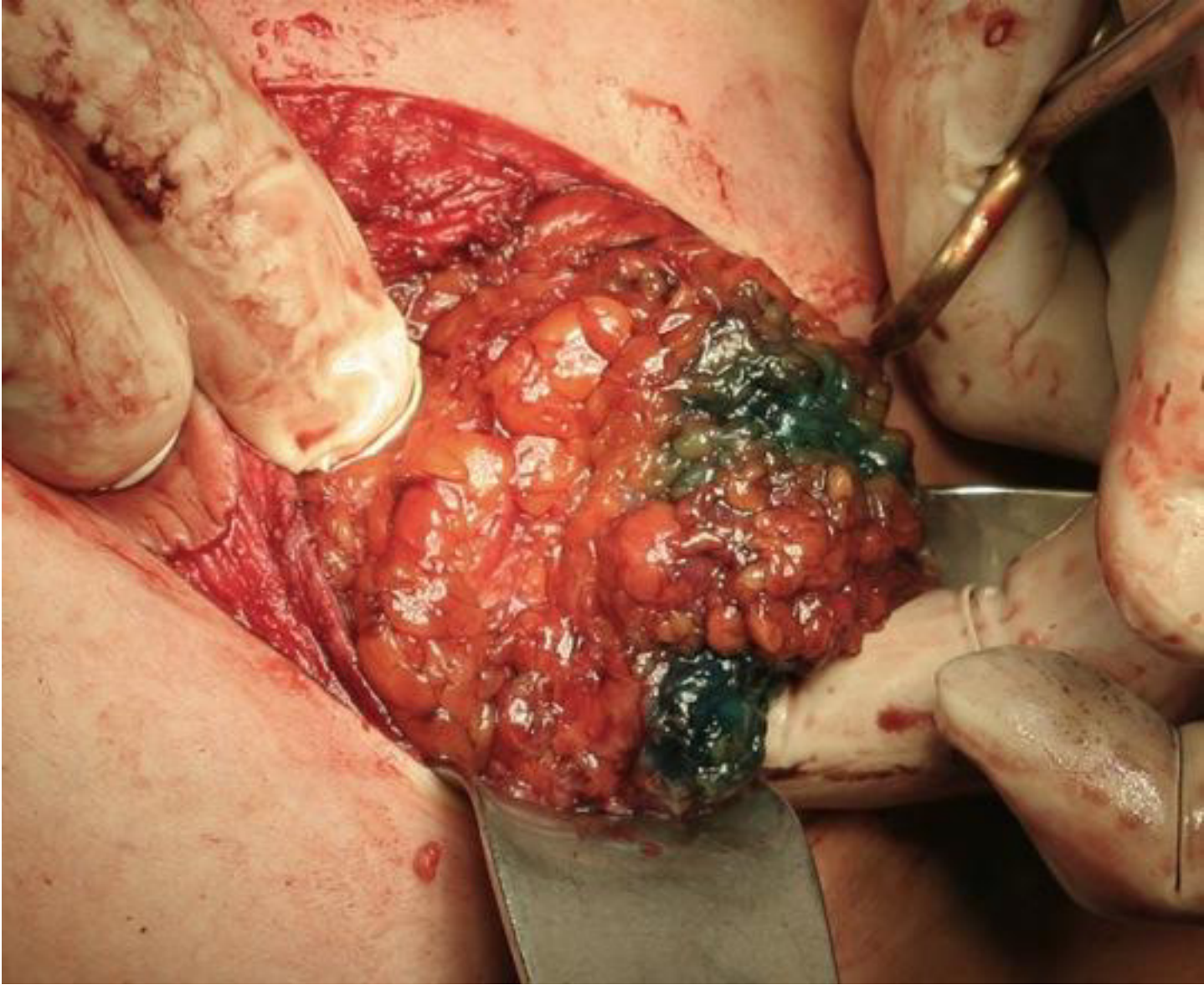


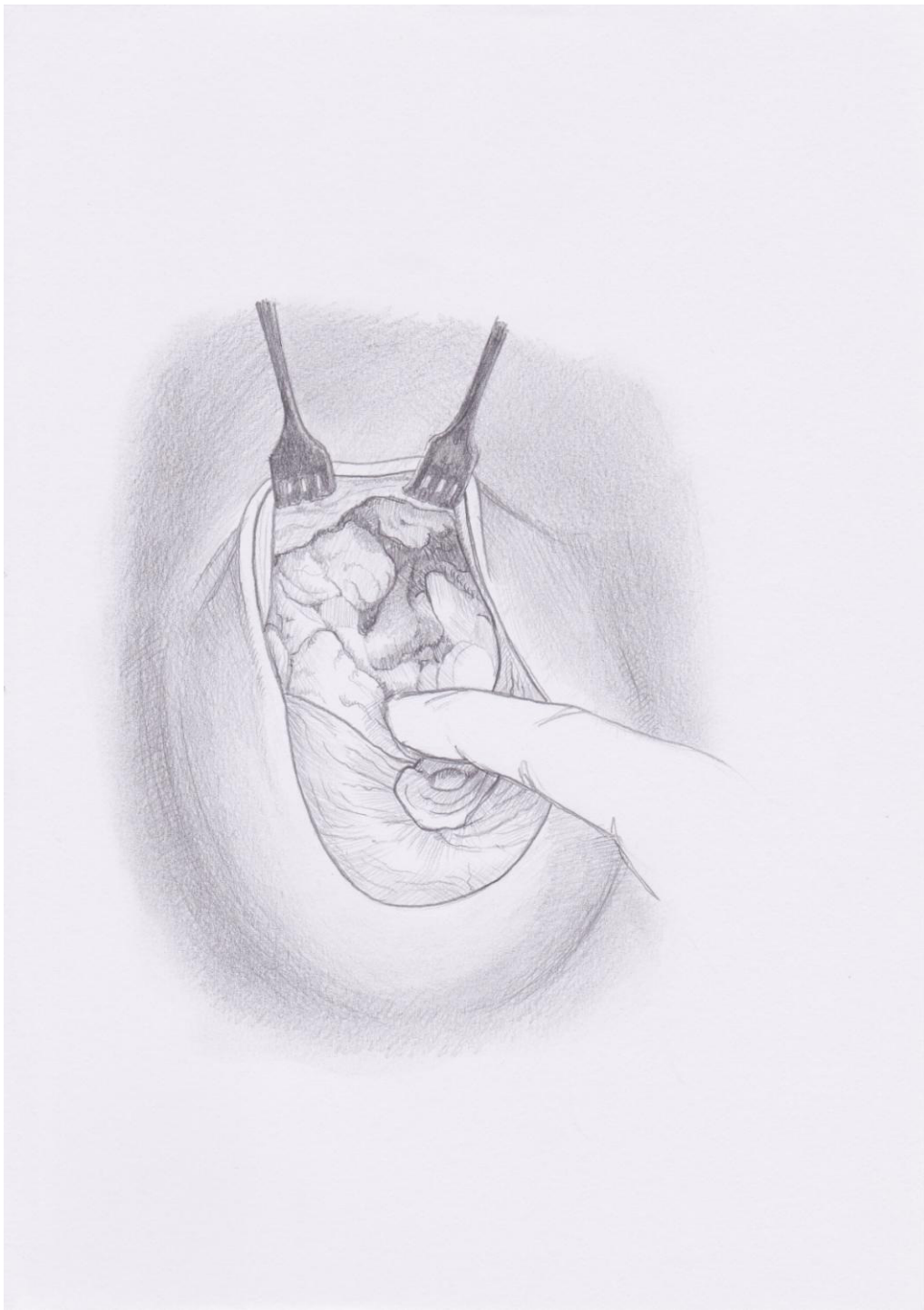












Resection of the breast lump completed

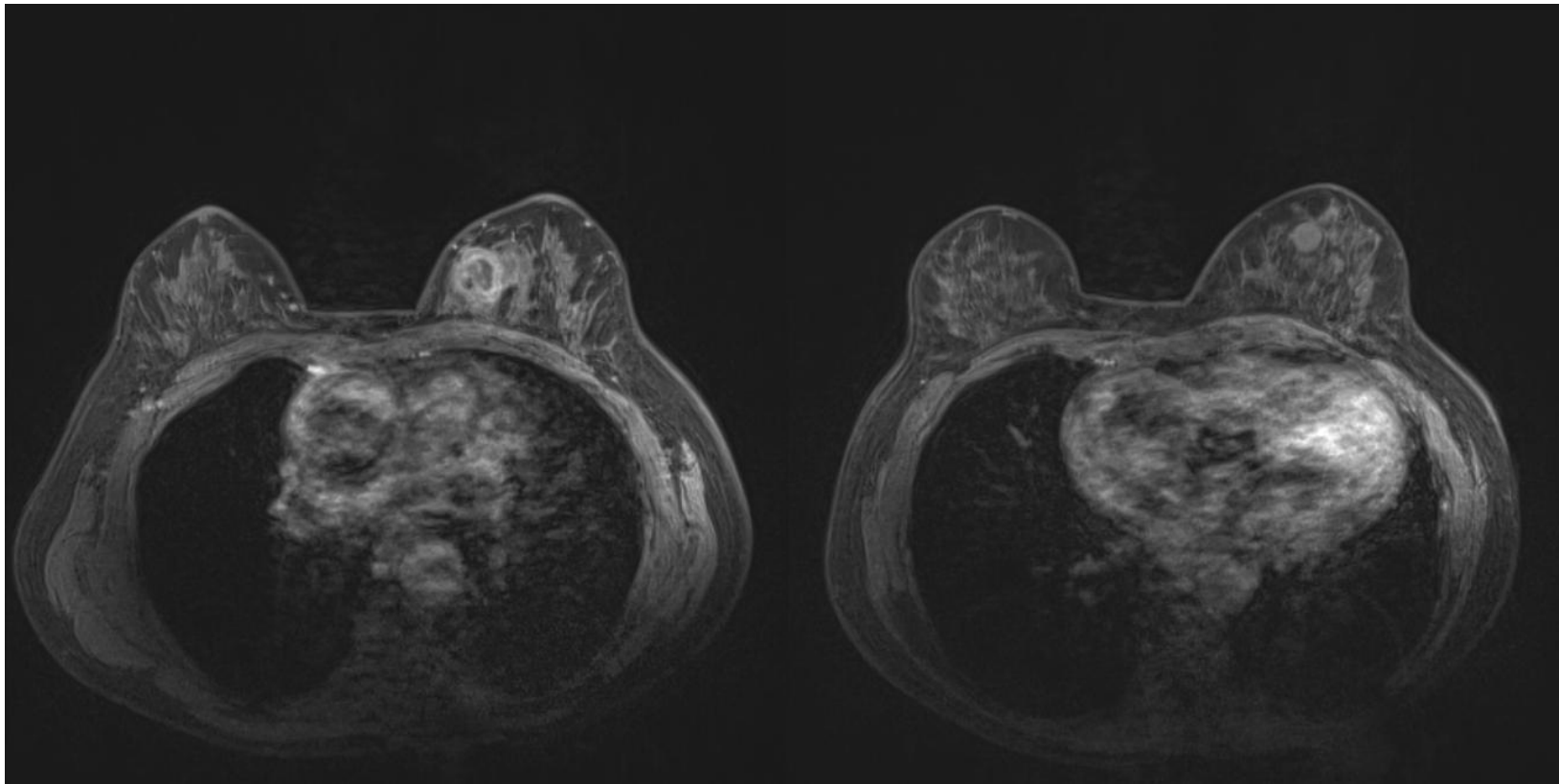




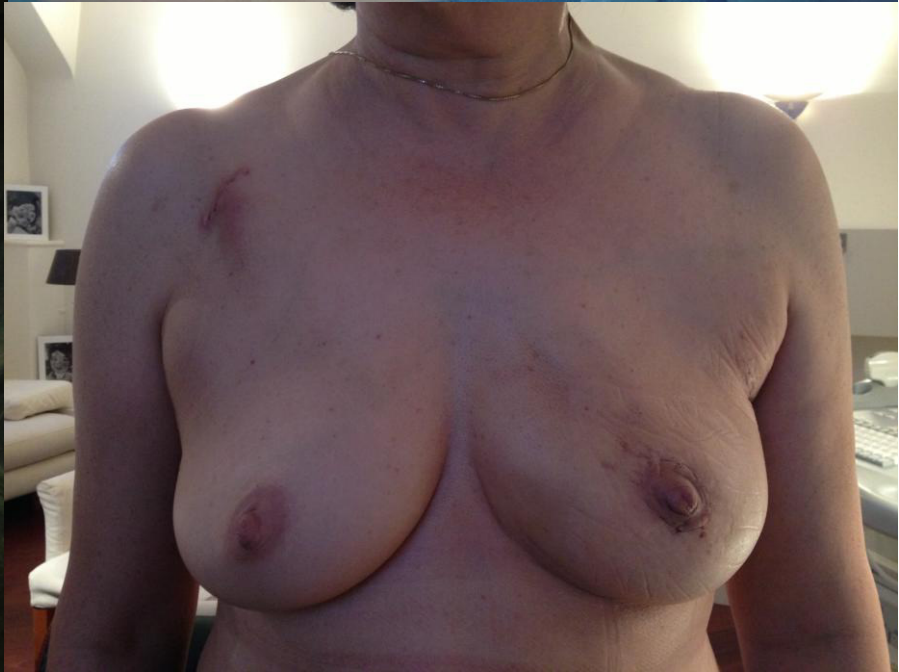


Round Block* after NACT

Before and after 6 cycles of EC-T



* First described by Zaha Breast 2013



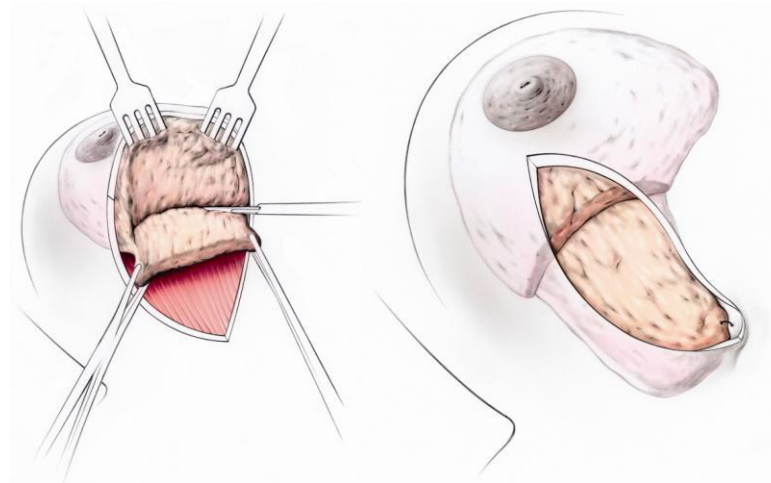
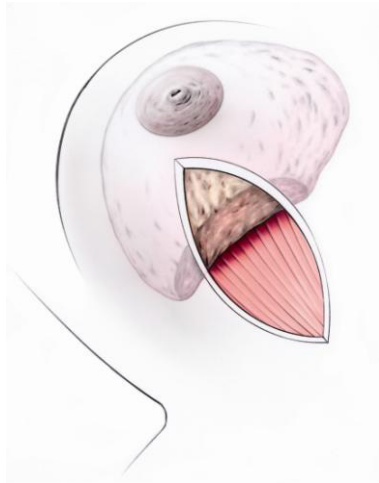
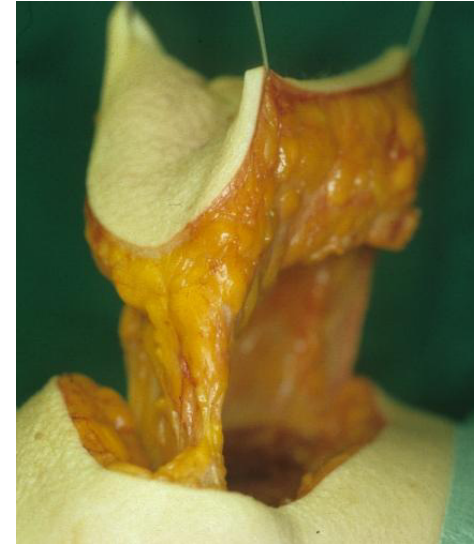
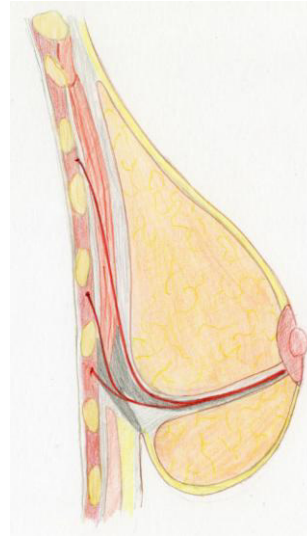
Round Block

After NACT cT2 cN0 - ypT0 ypN0



Intraparenchymal flap

- Vessels run with **Coopers Ligaments**
- Dissection of the breast tissue along these ligaments

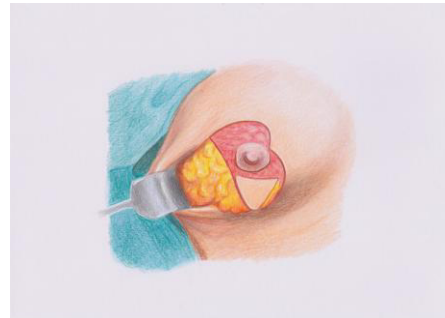


TYP II flaps with Nipple Relocation

- Inverse T Techniques



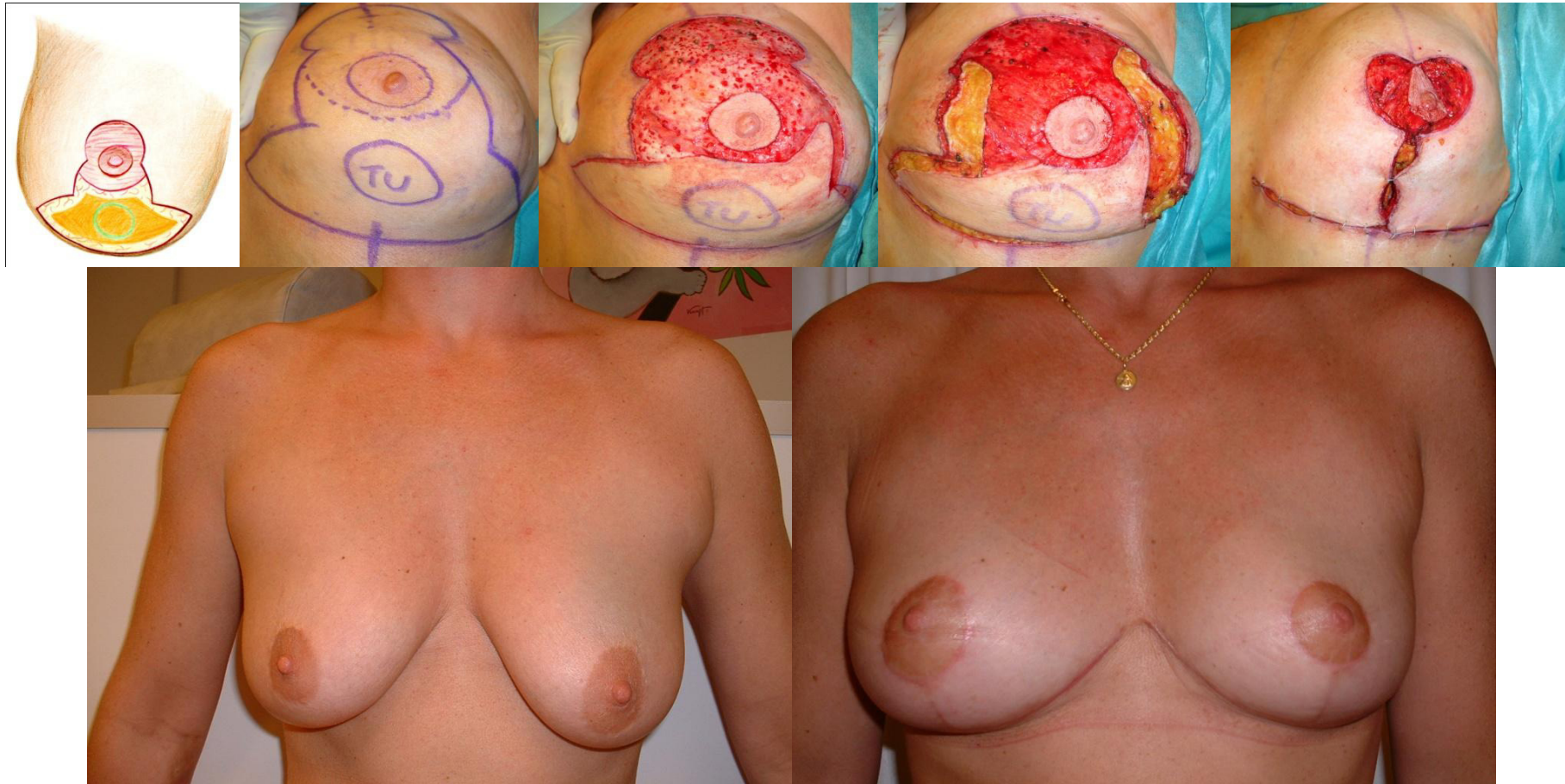
- Vertical Techniques



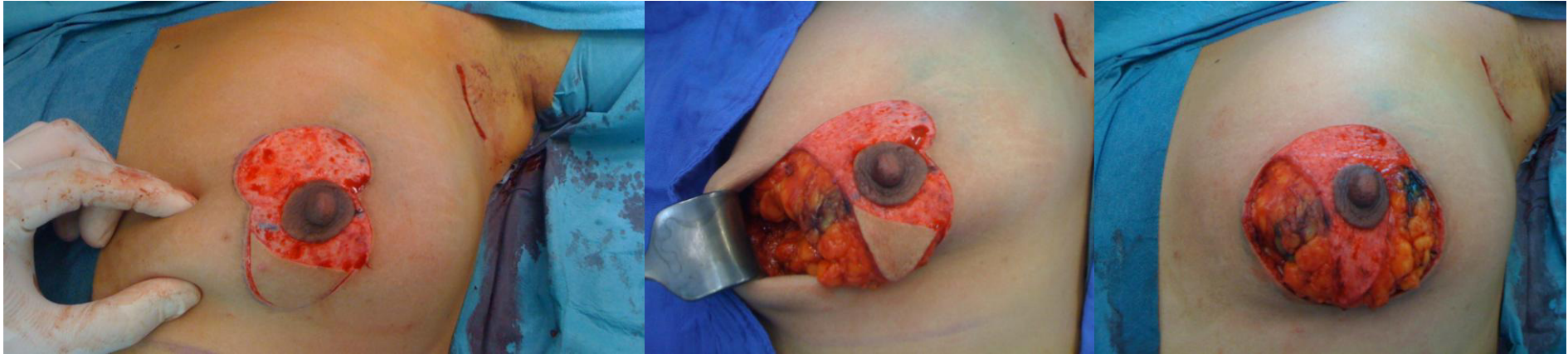
- J-type Techniques



Invers-T Technique

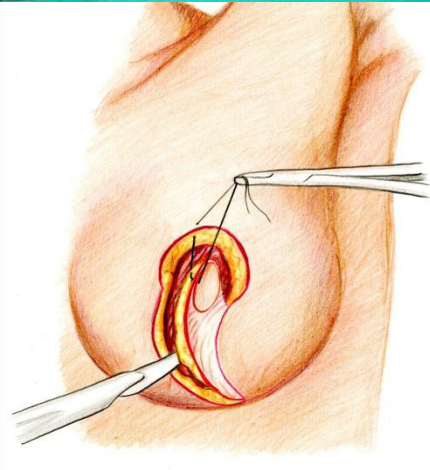
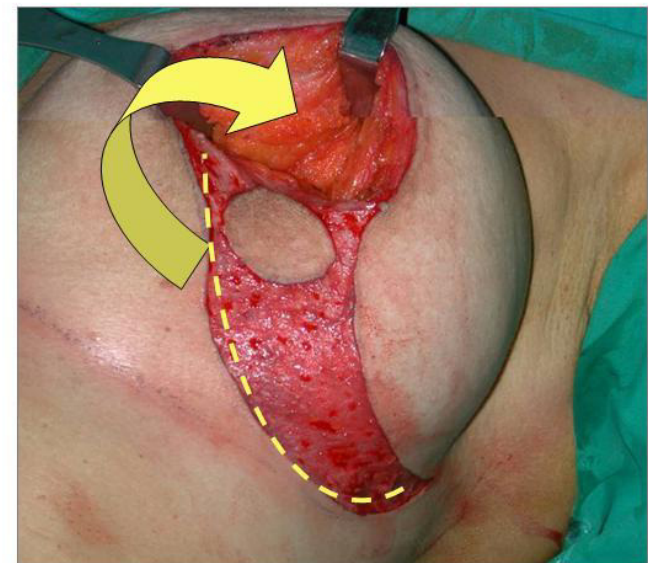


Caudomedial Breast Cancer



**Lejour
vertical technique**

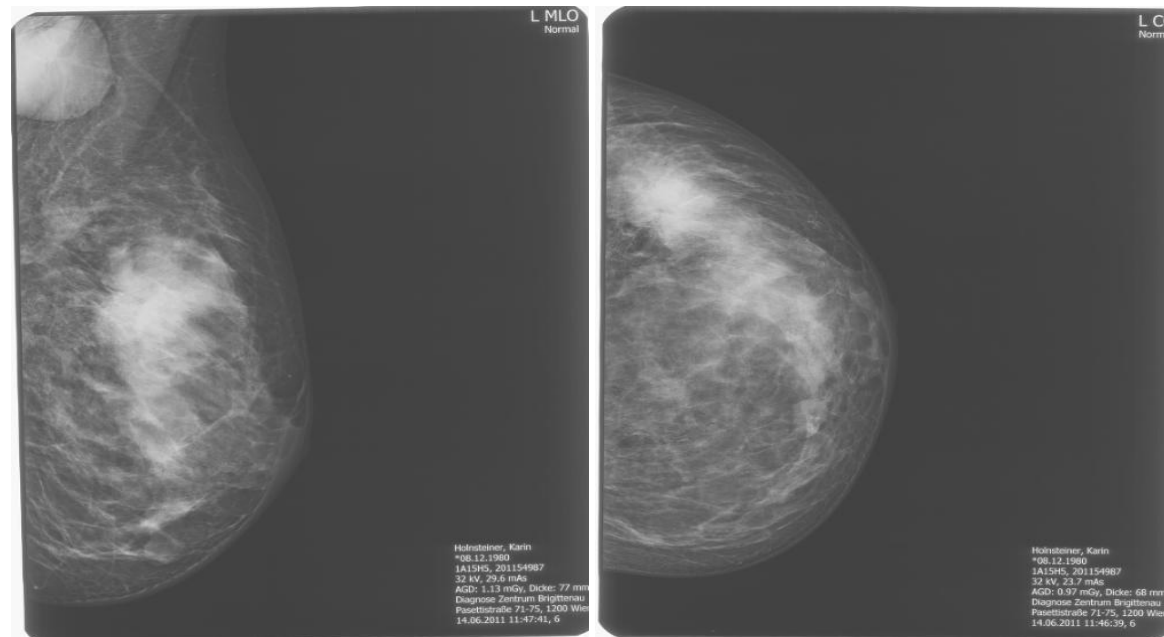
Central Breast Cancer



courtesy of Andrea Grisotti Milan

8.12.1980 KH

- Palp cancer left breast lat/cran
- 11 o'clock and 2 o'clock 2-3cm DM
- Tu Marker CEA 1,4 and CA15-3 27,4 (bis25)



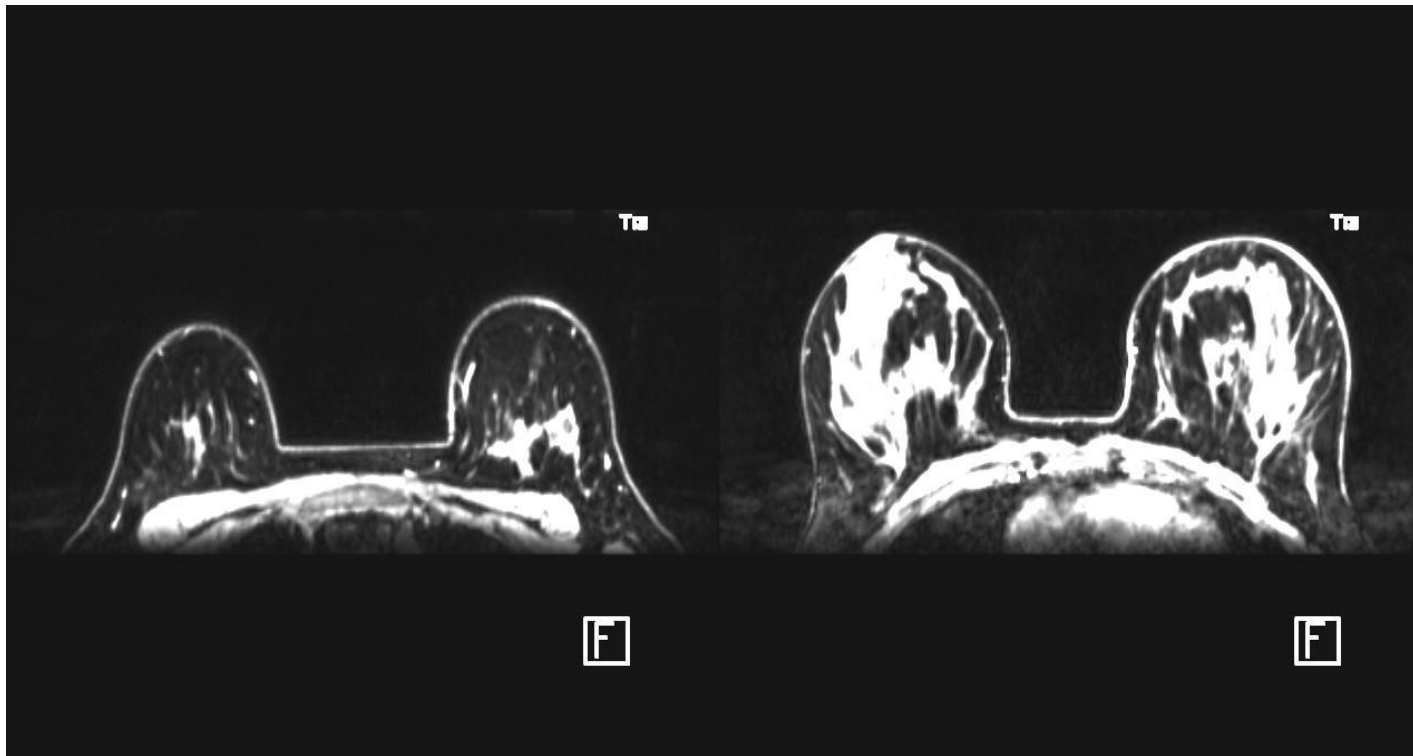
Histology Lum B1

- Invasiv ductal G3 L1
- Er+++
- Pr-
- Her-
- P53+
- MIB 80%



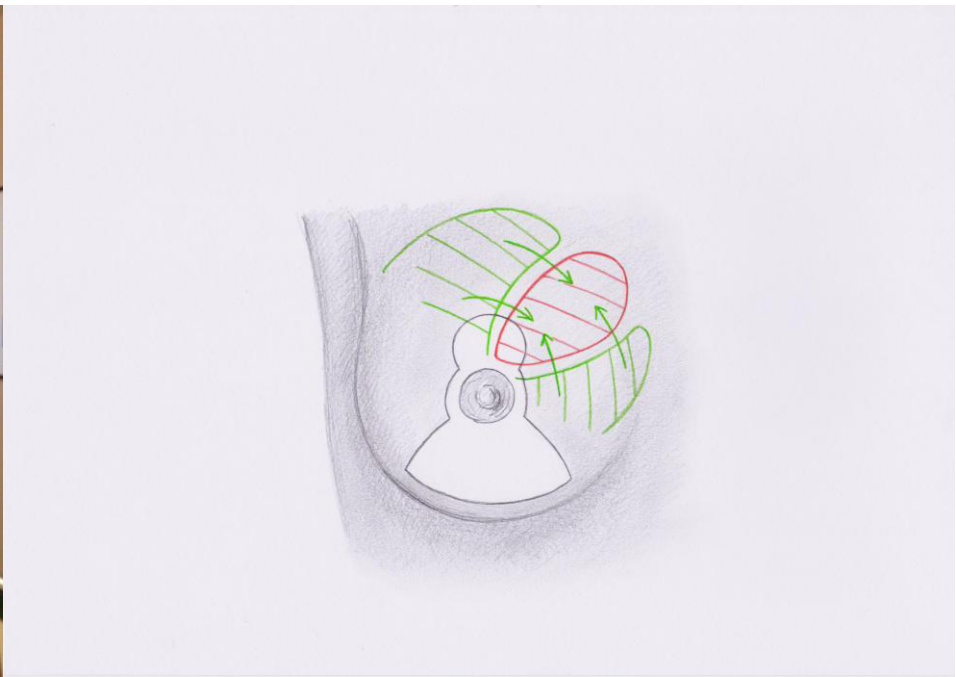
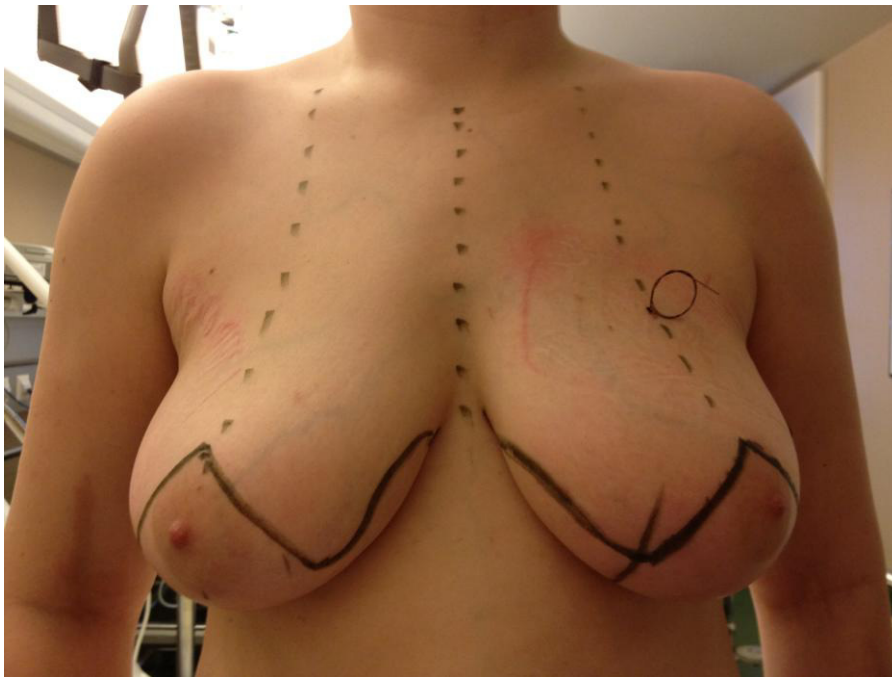
Tu Board

- 6 x TEX (Taxan, Epirubicin, Capecitabine)
- MR AFTER 4 Zyklen cCR in breast, cPR Axilla



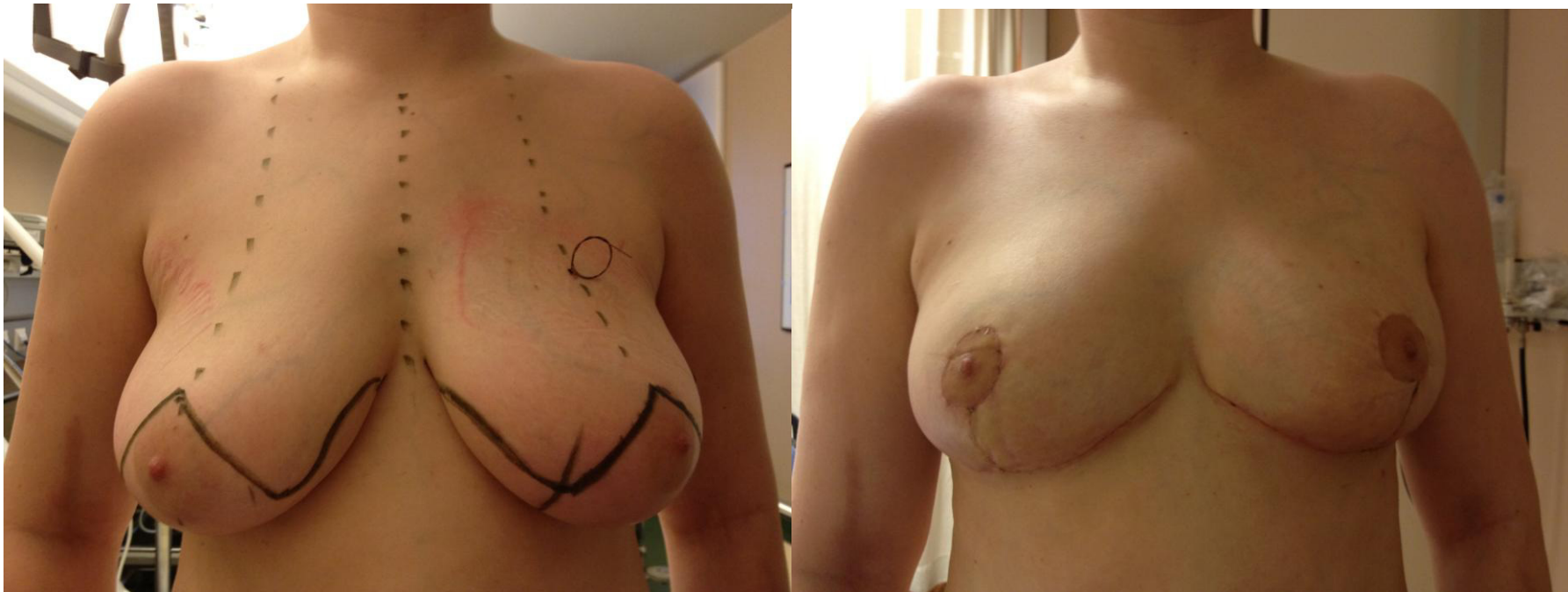
Surgical Plan

Invers T-technique and defect closure with breast parenchyma



Oncoplastic invers T bilateral plus Axilla links

ypT0 ypN0 (0/11) pCR

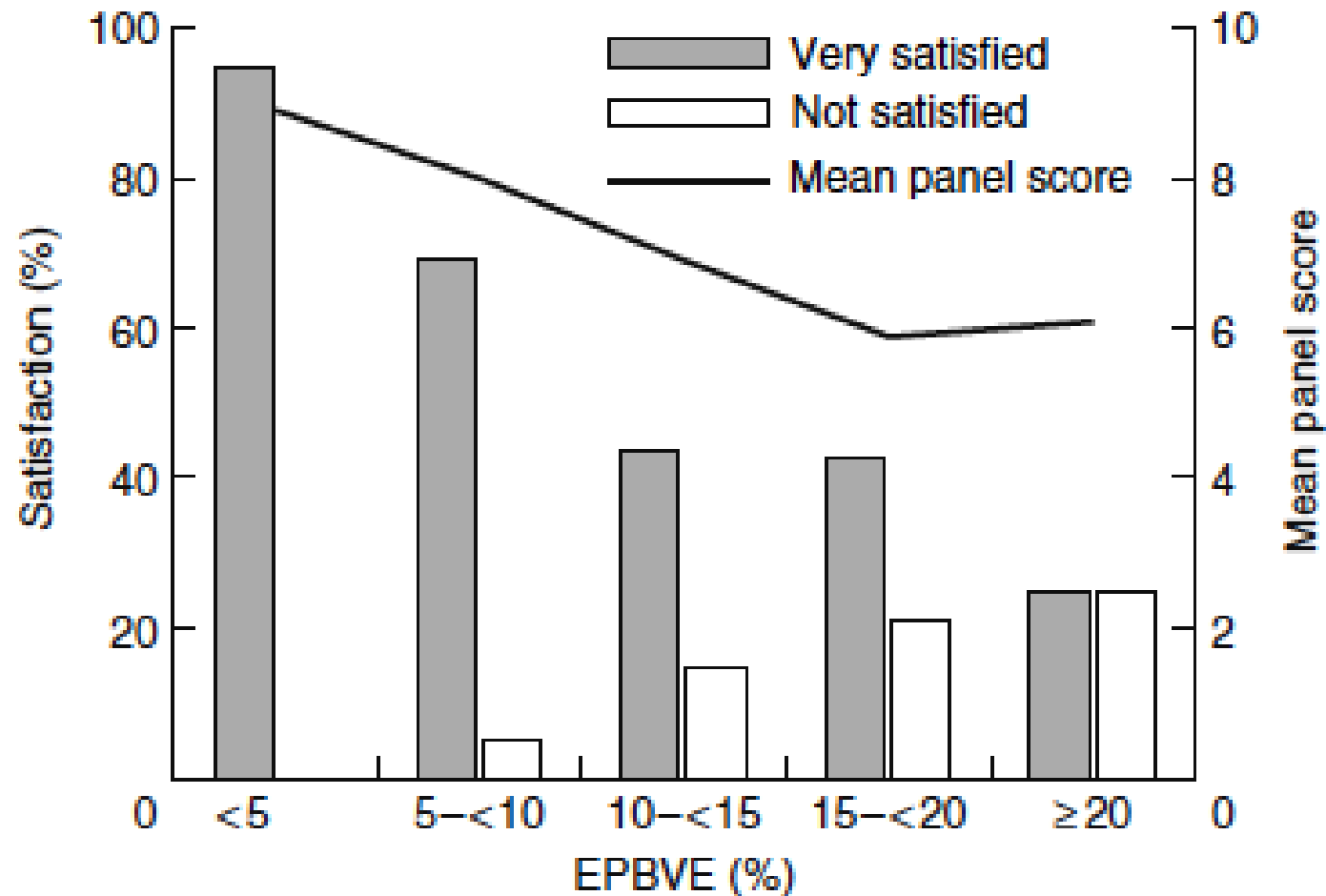


Oncoplastic Surgical Atlas

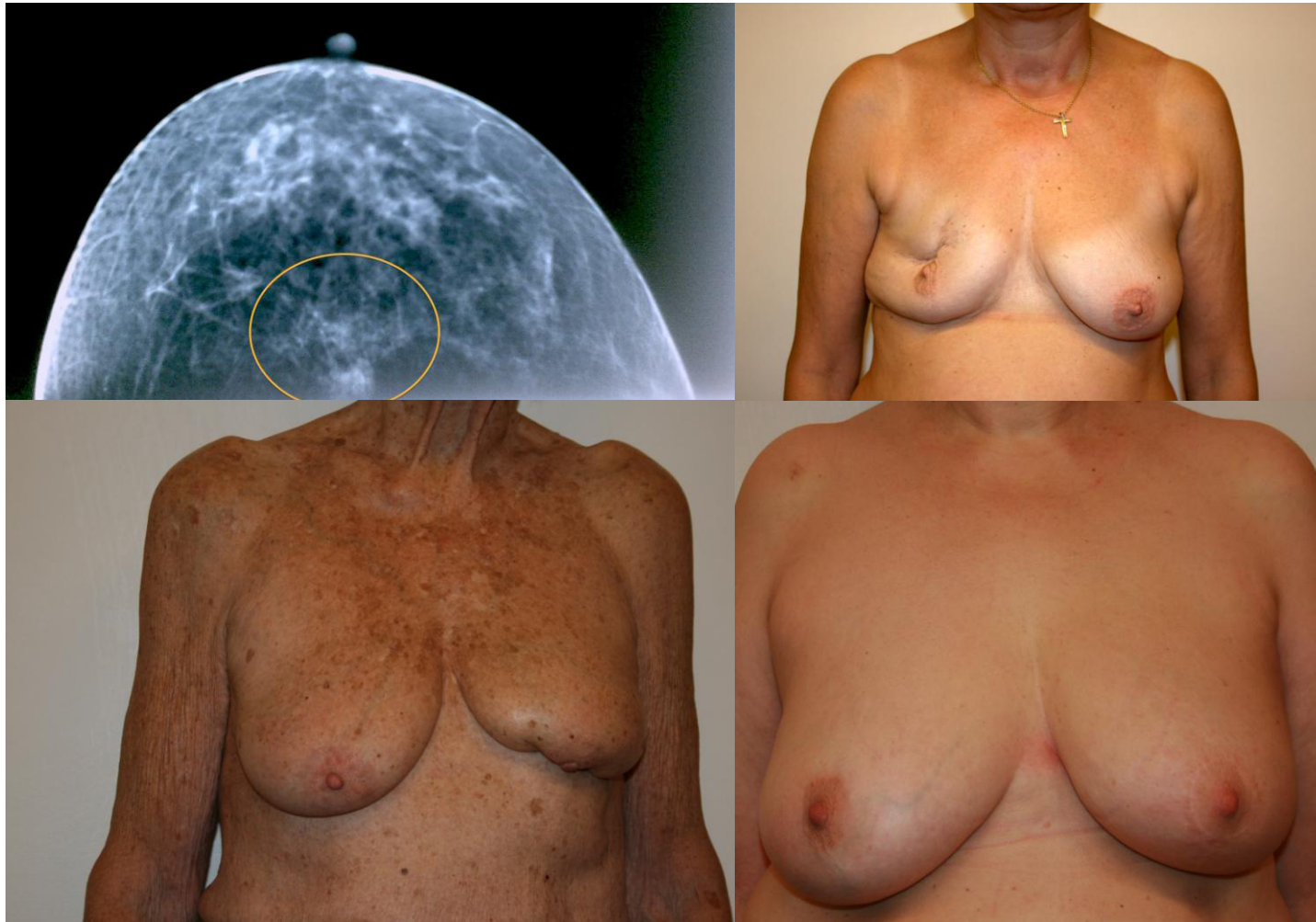


Indications – resection volume

Breast conservation and reduction techniques

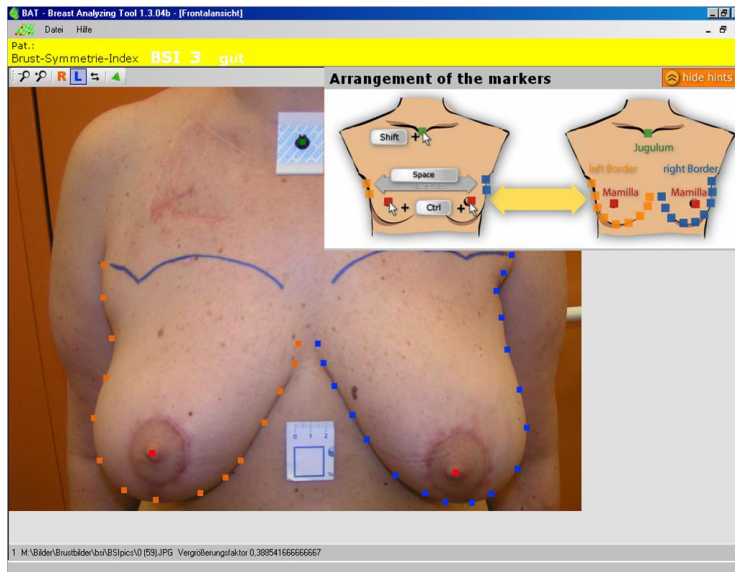


Indication – tumor location



Indications – tumor location

Breast conservation and reduction techniques in **central** location



	BSI [%d]
OPS	18 ± 9
BET	35 ± 10

Breast analyzing tool BAT® www.breastanalyzing.com/jbat

Indications

Breast conservation and reduction techniques



Resect > 20%

Large ptotic breast

Medial location

Central location

Caudal location

Oncologic Safety

...tumor not on ink...



...larger surgery is not better...



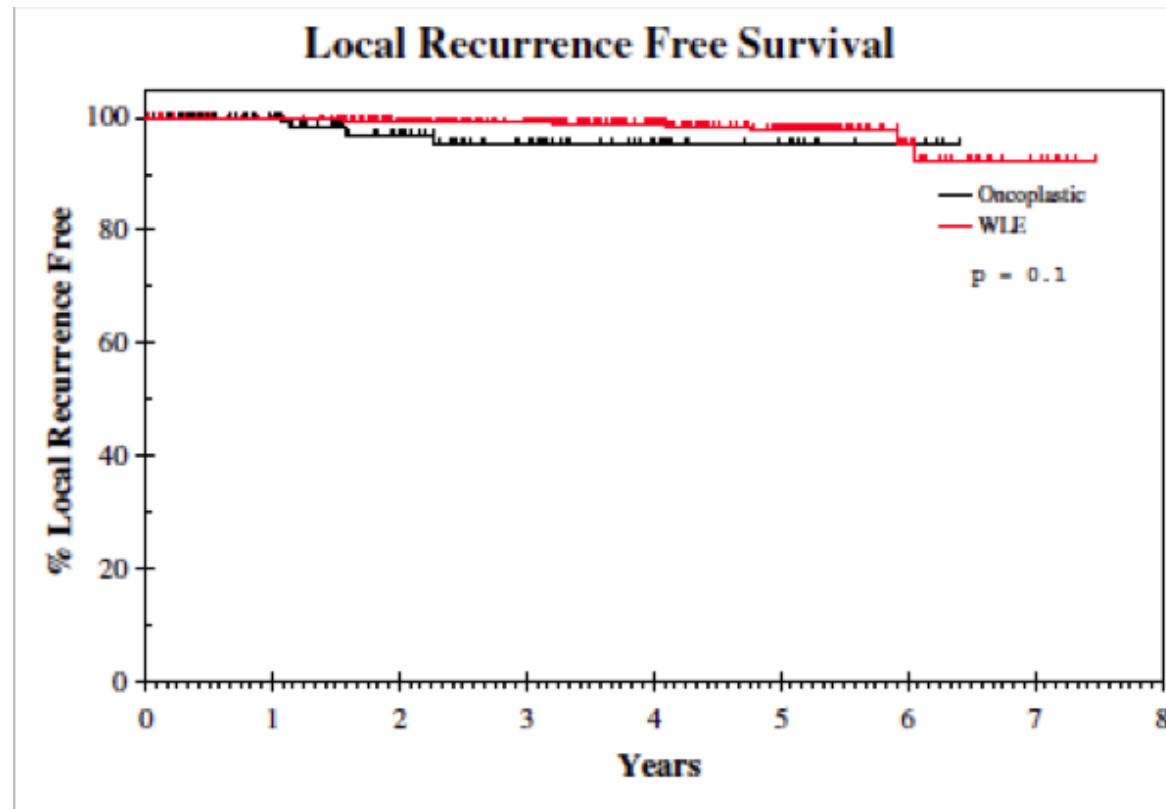
Monica Morrow JAMA 2009
MSKCC

Oncologic Safety

• Losken	2009	(n=17)	72m	6.0%	1.0%/year
• Almasad	2008	(n=25)	48m	4.0%	1.0%/year
• Rietjens	2007	(n=148)	74m	3.0%	0.5%/year
• Caruso	2007	(n=63)	68m	1.5%	0.3%/year
• Losken	2007	(n=63)	40m	2.0%	0.6%/year
• DaSilva	2007	(n=30)	15m	3.0%	2.4%/year
• Schrenk	2006	(n=125)	32m	0.8%	0.3%/year
• Clough	2003	(n=101)	46m	6.9%	1.8%/year
• Fitoussi	2010	(n=540)	49m	6.8%	1.7%/year
• Ostapenko	2011	(n=429)	80m	11%	1.6%/year
• Chang	2012	(n=85)	32m	2.3%	0.9%/year

Oncologic Outcome

Oncoplastic Surgery has similar local recurrence rates compared with BCT



Benefits – increase BCT rate

Contraindications against breast conservation St Gallen Conference 2013

	Yes	No	?
extensive microcalcification	20%	74%	6%
multifocality	7%	89%	4%
multicentricity	30%	65%	5%
close to nipple areola complex	0%	96%	4%

St Gallen 2017 Vienna
3rd-vienna-breast-surgery-day/

Benefits – increase BCT rate

ympT2 (4,5cm) G2 DCIS ypN2 (5/16)



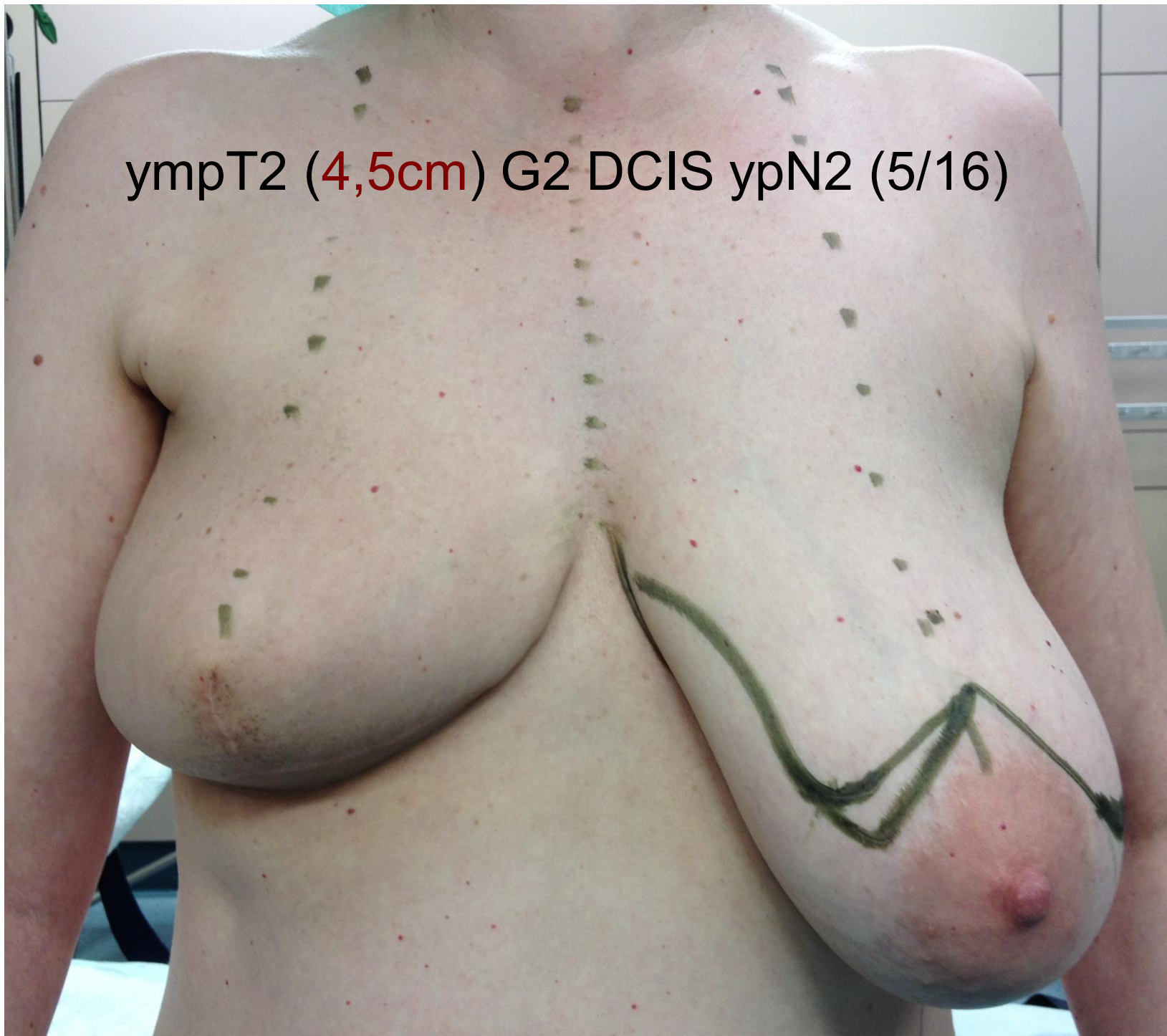
Oncoplastic after NACT



LumB1

cT3 cN1 invasive breast cancer
right breast retromamillär
NACT 3xEC 3x Taxan - cPR
cT2 before surgery

ympT2 (4,5cm) G2 DCIS ypN2 (5/16)







Benefits – re-excision rate

Meta-analysis of 8659 patients comparing BCT and OPS

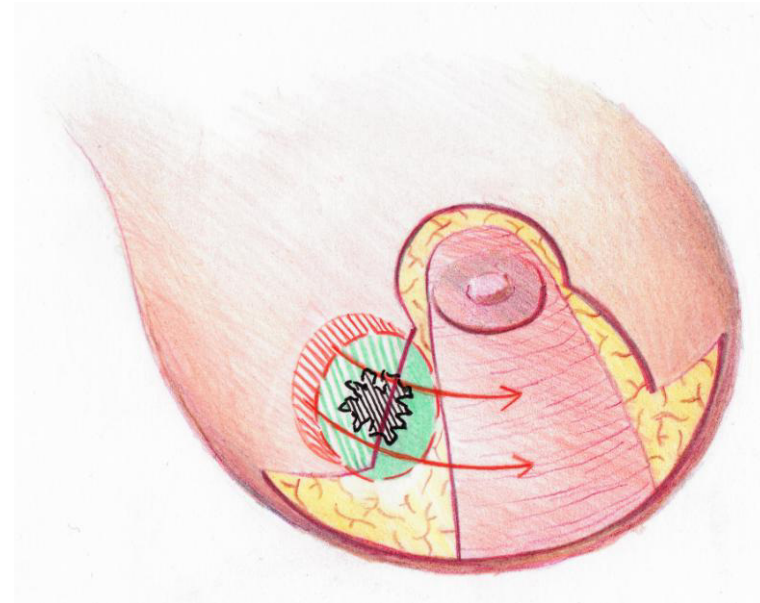
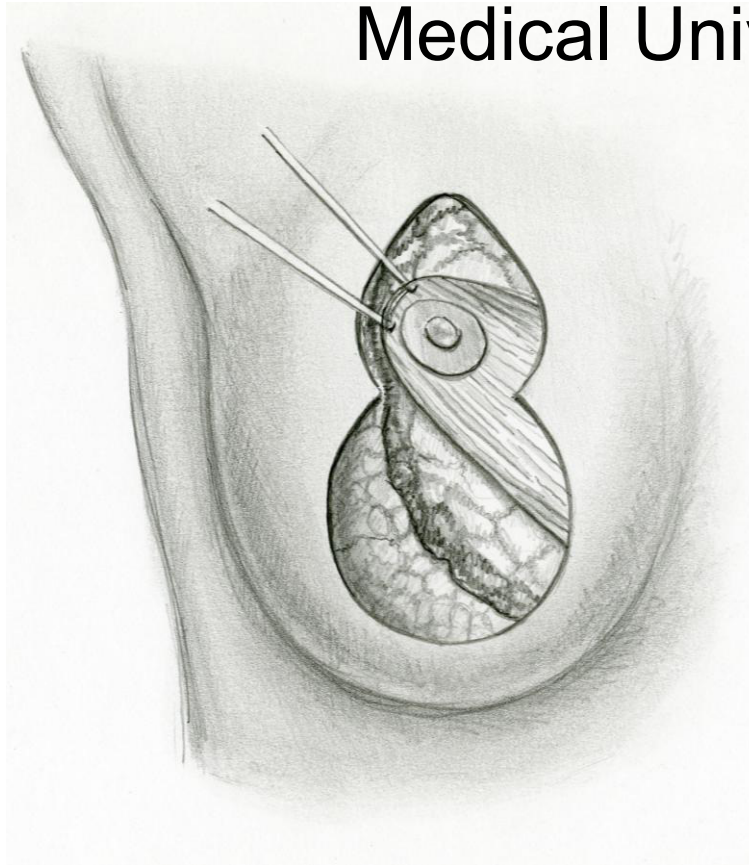
	OPS (3165)	BCT (5494)	p
Tumor size	25 (15-40)	12 (7-15)	
Specimen weight	249 (200-338)	184 (94-310)	<0.001
Positive margins	12%	21%	<0.001
Re-excision rate	4%	14%	<0.001
Mastectomy rate	6%	4%	<0.001

Oncoplastic: higher necrosis rates

BCT patients	All morbidity	BMI>30	DM II	OPS	nCT
n=255	n=50	49	18	23	9
Abscess	8	1.372	2.635	0.562	5.612
Infection	15	2.944 0.051	1.321	1.890	0.782
Bleeding	4	3.598	5.743	1.080	2.826
Hematoma	7	5.223 0.052	3.052	0.640	1.674
Necrosis	4	0.385	5.743	10.721 0.011	2.826
Re-OP	12	1.037	1.688	0.375	3.599

The iTOP trial – NCT01396993

prospective non-randomised open controlled study
Medical University Vienna



The iTOP Trial - Design

Unilateral breast tumor > 10% have to be resected
or
Mastectomy necessary



Patient chooses between oncoplastic or not

BCT

Breast conservation

iTOP 1/2

Breast conservation
with Oncoplastic surgery

iTOP 3

Mastectomy
with immediate reconstruction

The iTOP Trial: Endpoints

- Primary endpoint
 - Breast self-esteem after 12 months (BIS)
- Secondary endpoint
 - breast symmetry measured with BAT®
 - QOL
 - Morbidity (necrosis, re-excision rate)
 - LRFS, DDFS, OS
- **Interim safety analyses**
 - **Re-operation rate and morbidity after 100 patients**
(goal: no significant increased re-operation rate due to morbidity)

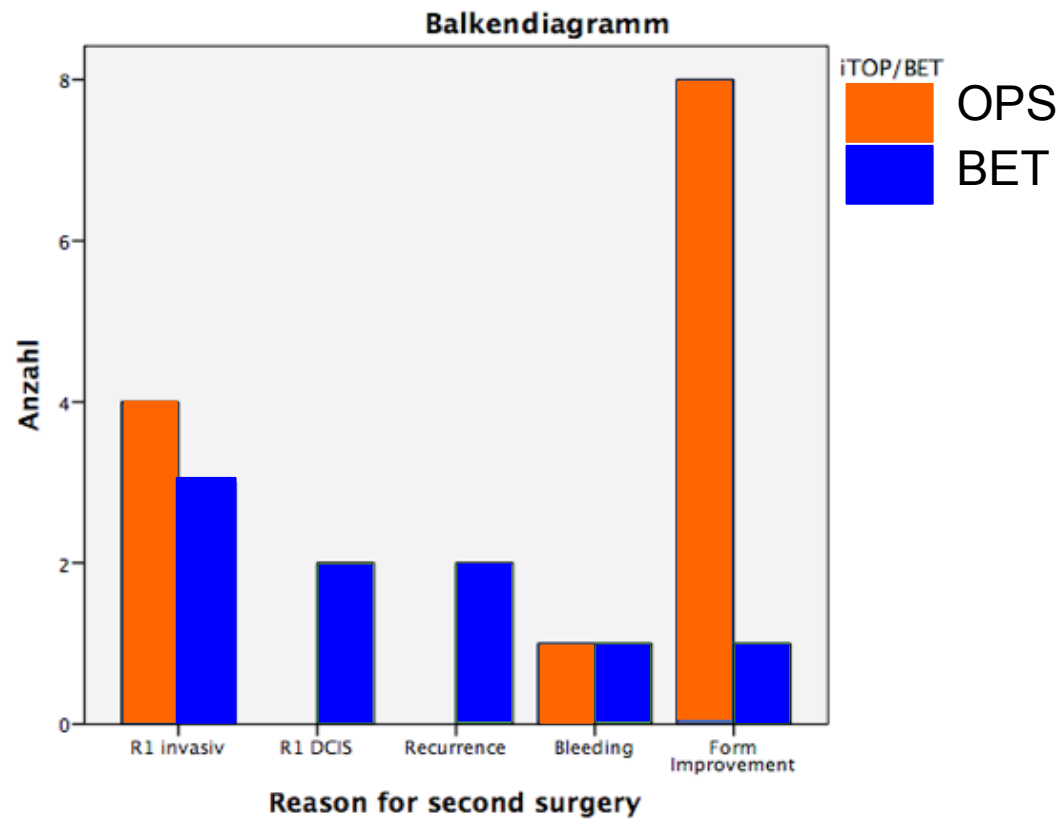
The iTOP Trial re-operation

NO increased revision surgery after iTOP

	Group				Total	
	BCT (n=50)		iTOP (n=50)			
R1 Re-excision	5	10%	4	8%	9	9%
Revision Surgery	1	2%	1	2%	2	2%
Total	6	12%	5	10%	11	11%

The iTOP Trial re-excision R1

Less Re-excision for DCIS after OPS



The iTOP Trial morbidity

Necrosis and infections increased after iTOP

	Group				Total		χ^2
	BCT (n=50)		iTOP (n=50)				
Serom	6	12%	4	8%	10	10%	0.504
Necrosis	0	0%	3	6%	3	3%	0.039
Infection	0	0%	4	8%	4	4%	0.017
Bleeding	2	4%	3	6%	5	5%	0.646
Total	8	16%	14	28%	22	22%	0.043

The iTOP Trial pain

6 months after surgery measured with the VAS scale

Group	Arithmetic Mean	N	Standard Deviation
iTOP (n=50)	2,18	50	2,301
BCT (n=50)	2,06	50	1,812
Total	2,12	100	2,061

The iTOP Trial: breast seroma

Duration in days of seroma care in outpatient ward

Group	N	Median days	Minimum	Maximum
iTOP (n=50)	4	10,5	5	13
BCT (n=50)	6	5,0	3	11
Total	10	6,0	3	13

The iTOP Trial conclusion

- **Less re-excision for DCIS after oncoplastic surgery**
- **NO increased re-operation rate after oncoplastic**
- 30% relative morbidity increase after oncoplastic surgery
- Infections and skin necrosis are the dominant factors
- 2x longer seroma care after oncoplastic surgery

Come to Vienna 2017

1 Day before St Gallen Conference in Vienna

Invitation

3rd Vienna Breast Surgery Day

March 14th, 2017

Medical University of Vienna, Van Swieten Saal,
Van-Swieten-Gasse 1a, 1090 Vienna, Austria

www.ccc.ac.at/vbsd

Key Factor - Team Factor

