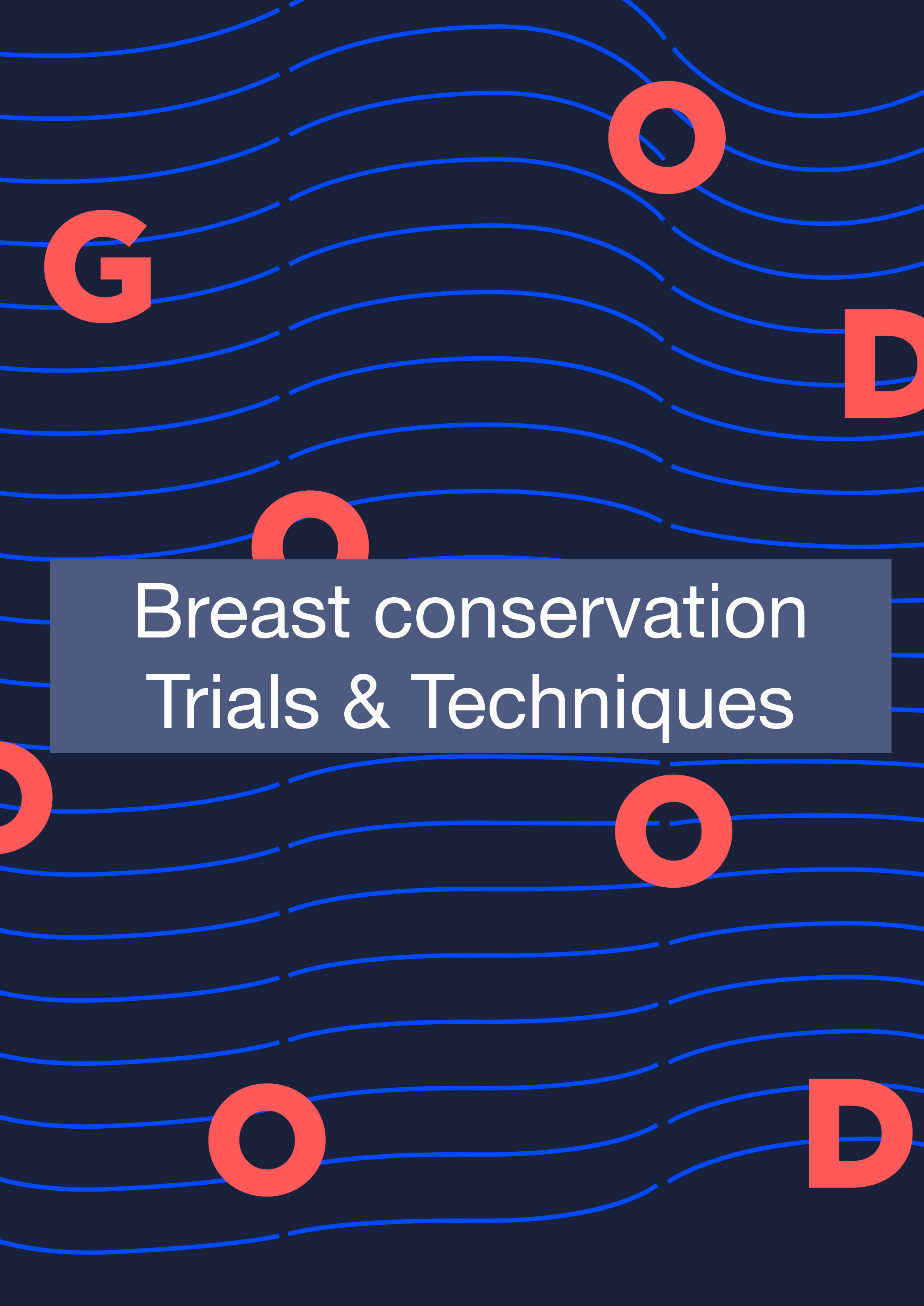


The background features a dark blue field with horizontal, wavy blue lines. Scattered throughout are large, red, stylized letters: a 'G' in the upper left, an 'O' in the upper right, a 'D' on the right edge, a 'G' in the lower right, and a 'D' in the lower right. A semi-circular red shape is also visible above the central text box.

Breast conservation Trials & Techniques

→ Surgical management of BC

① Breast conservation surgery

only **Absolute contraindications** in the current era

- 1) Inflammatory breast cancer
- 2) Persistent positive margins after 2 resects.
- 3) Diffuse microcalcification.

Relative contraindications

- multicentricity / multifocality
- connective tissue disorders - SLE & Scleroderma

- Intra operative margin assessment
- By palpation 1cm all around.
- Not routine to remove Bx Scar.
- Not routine to remove pectoral fascia.

Methods to ↓ margin positivity

- 1) frozen section - Not routine
- 2) cavity shaving
- 3) Specimen USG.
- 4) Specimen mammogram

- Margin Recommendation (SSO/ASTRO guidelines)

IBL - No ink on tumor (invasive | DCIS component)

DCIS - 2mm margin

LCIS
Atypia } No margins needed.

→ SSO | ASTRO margin guidelines:

	No ink on tumor	2-mm margin	No margin necessary
Invasive breast cancer	X		
Invasive breast cancer + DCIS	X		
Invasive breast cancer + extensive DCIS	X		
Invasive breast cancer (treated with neoadjuvant chemotherapy followed by breast conservation therapy) ^{4,5}	X		
Pure DCIS		X	
DCIS with microinvasion		X	
Pure LCIS* at surgical margin			X
Atypia at surgical margin			X

*For pleomorphic Lobular Carcinoma In Situ (LCIS), the optimal width of margins is not known.

* Negative margin → "absence of cancer cells on inked surface"

* Close margin → No standard definition

* close deep margin

* close superficial margin

} No clinical significance if pectoral fascia & skin are removed.

* Positive margin → "Presence of invasive carcinoma / DCIS on inked surface"

↓
• 2x risk of IBTR compared to negative margin

• Risk not mitigated by favourable histology / RT boost, endocrine therapy.

→ Management of positive margins:

* DCIS treated w/ Sx alone → Re-excision preferred.

* DCIS treated w/ Sx + WBRT → NO consensus, case to case basis.

* IBC → multiple close margins
extensive intraductal component
young age
residual calcification on post
excision mammogram

→ Re-excision.

If only focal positive, Radiation boost can be given.

→ Radical mastectomy vs MRM trial

NSABP-B04

Both in Node positive & Node negative.

No difference in OS / DFS

→ Landmark trials in Breast conservation:

1. NSABP-B06 (Fischler et al)

Stage I/2 Breast cancer
Tumour ≤ 4 cm

n = 2163

• All 3 arms underwent AxoD irrespective of nodal status

• Assignment CT if node positive

↓
Stratification based on
- Nodal status
- T-size.

	↓ mastectomy	↓ lumpectomy + RT	↓ lumpectomy only.
20 year follow up IBTR	10.1%	14.3%	39.2%

No significant difference in OS, DFS, distant DFS at 5yr and 20 year follow up.

2. Milan Cancer institute trial :

CA Breast $\bar{c}$
Tumour ≤ 2 cm
only

N = 701

	Radical mastectomy	Breast conservation in the form of quadrantectomy + W.B.T.
Adjuvant CT in node positive patients		
20 yr follow up		
IBTR	2.3.1.	8.8.1.
All cause mortality	41.2.1.	41.7.1.
disease specific mortality	24.3.1.	26.1.1.

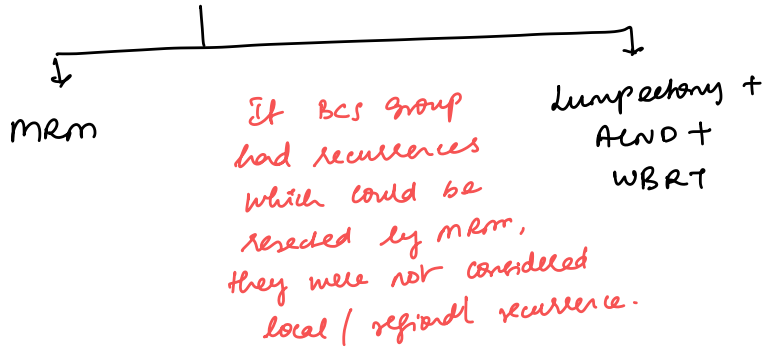
Long term survival was equivalent, supporting BCT for early breast cancers.

3. National Cancer Institute trial (NCI trial)

Included larger
tumours than
B-06 / milan trials

T₁/T₂ breast cancer
Size ≤ 5 cm

N = 237



10 year follow
up

	MRM	Lumpectomy + AND + WBRT
OS	75 %	77 %
DFS	69 %	72 %
LRR	10 %	5 %
20 year OS	58 %	67 %
DFS	54 %	63 %

Other trials :

4. Institut Gustave Roussy trial

5. Danish Breast Cancer Cooperative group trial

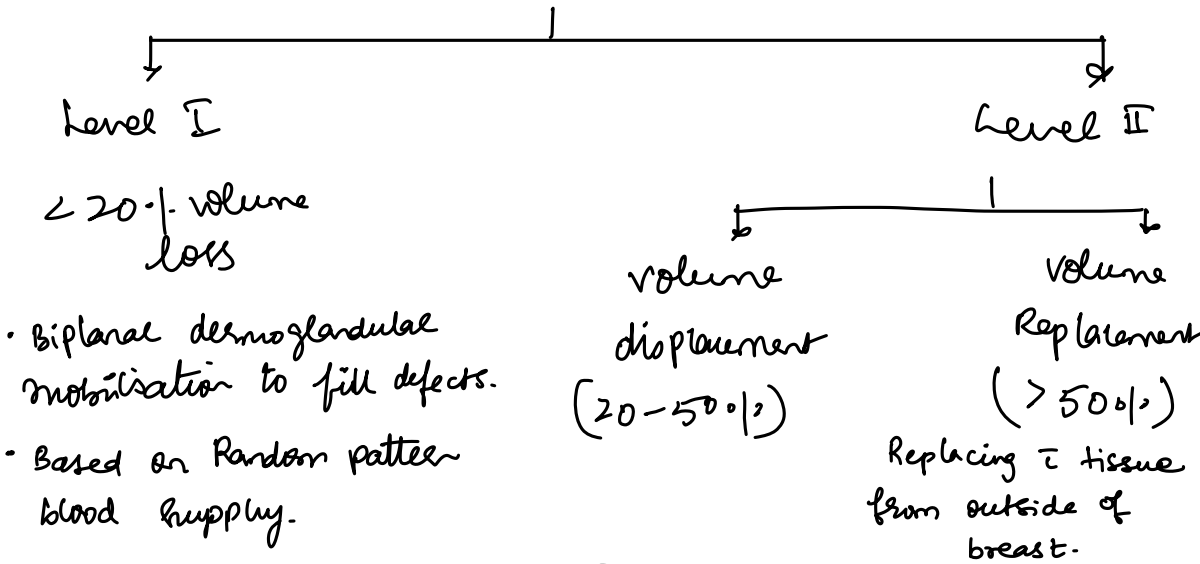
6. EORTC 10801

Breast Onoplasty & Reconstruction

★ Breast Onoplasty :

- Aesthetic approach to ablative procedure
- Reconstruction of breast defects post Sp.
- Contralateral breast symmetrisation procedure.

Krishna Chough Levels of Onoplasty



Considerations before planning

① Patient factors

Age
Comorbidities
BMI
Breast size, shape, ptosis, density
Patient expectation

② Donor site factors

③ Surgical expertise

④ Tumor factors

- Number, site, size
- Type of tumor spread.
- Tumor: Breast ratio
- Volume loss
- re-exploration probability
- CL Breast Symmetry

- * High density breast ACR 3/4 - good outcomes
- low density breast ACR 1/2 - $\uparrow$ fat necrosis $\bar{c}$
 $\uparrow$ misdiagnosis.

* Classification

① Based on type of access

- Submammary
- Periareolar
- Latelal approach.

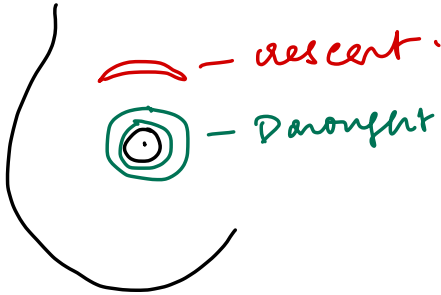
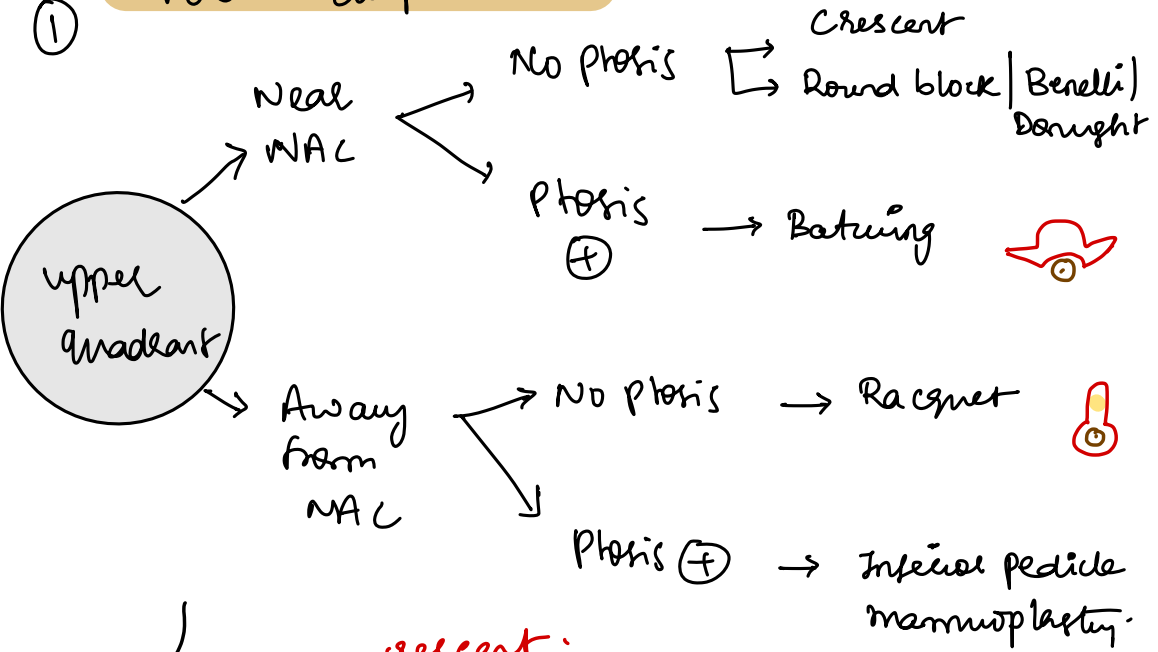
② Based on shape of excision

- Crescent mastopexy.
- Radial ellipse segmentectomy
- Parallelogram excision.
- Reduction mastopexy

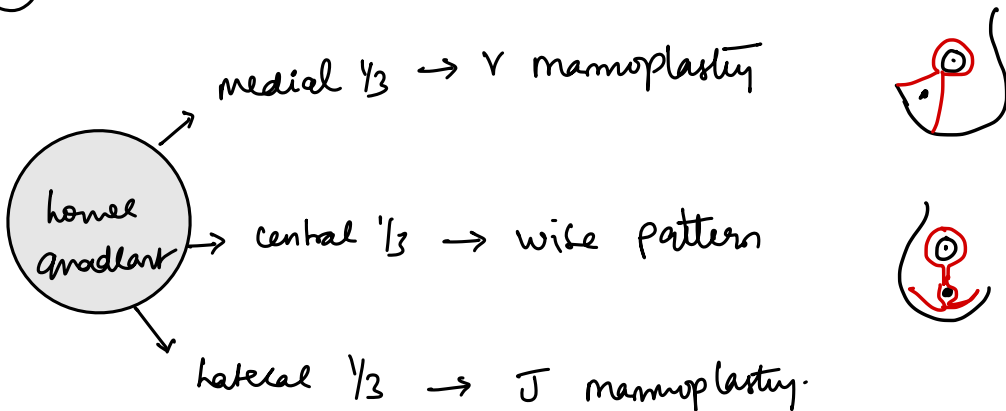
★ Based on location of tumour

Volume displacement

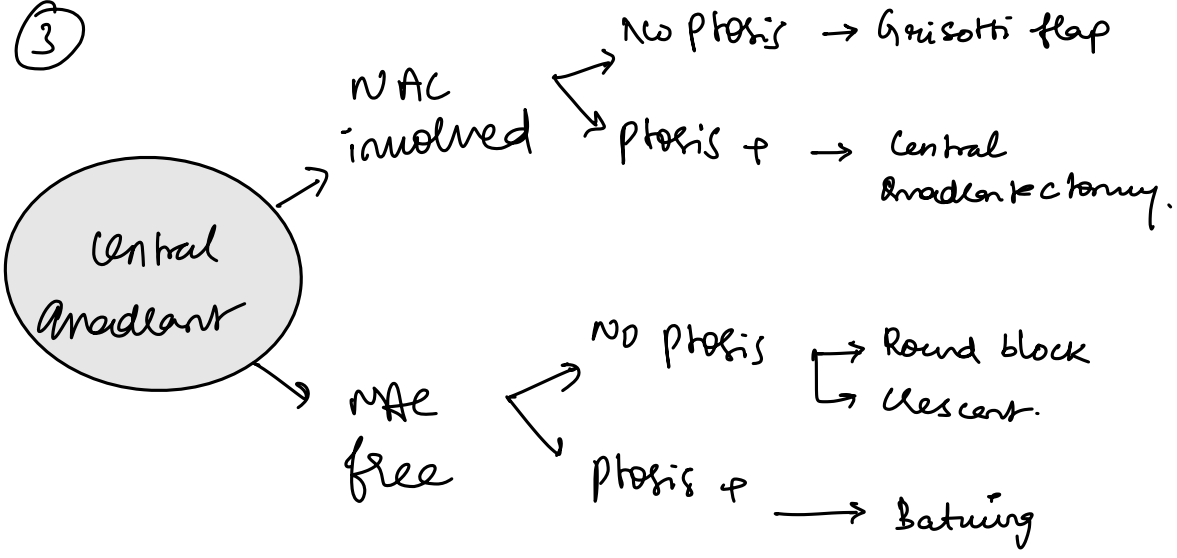
①



②



3



Grisotti flap



★

Volume replacement

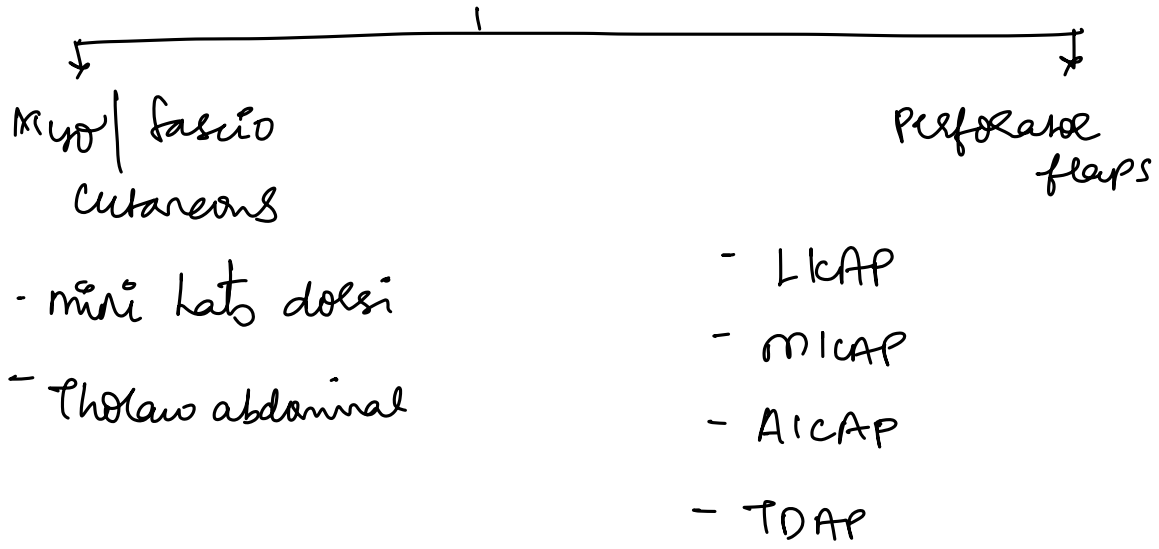


TABLE 53.10

Common Reconstructive Options after Mastectomy

Type	Advantages	Disadvantages
Implant	One-stage procedure, minimal prolongation of hospitalization or recovery Low cost	Poor symmetry if skin removed or in large ptotic breasts Capsular contracture, leakage, rupture possible
Tissue expander	Short operative time Hospitalization, recovery not prolonged Low cost	Multiple physician visits postoperatively Poor symmetry for large or ptotic breasts Capsular contracture, leakage rupture possible
Latissimus dorsi flap	Very low risk of flap loss Natural contour with autogenous tissue	Donor site scar Usually requires an implant Moderate prolongation of hospitalization and recovery
TRAM flap	Natural contour Good match for large or ptotic breasts Abdominoplasty	Donor site scar Fat necrosis, flap loss possible Abdominal wall weakness plus hernia Significant prolongation of hospitalization and recovery
DIEP flap	Natural contour Muscle sparing Abdominoplasty	Donor site scar Need for microsurgeon Flap loss possible Moderate prolongation of hospitalization and recovery
Superior gluteal artery perforator flap	Natural contour Alternative donor site	Donor site scar Need for microsurgeon Flap loss possible Moderate prolongation of hospitalization and recovery

TRAM, transverse rectus abdominus myocutaneous; DIEP, deep inferior epigastric perforator.

If autologous reconstruction planned → Can be done during primary surgery.
Flap RT.

If implant based reconstruction planned → Insert tissue expander
↓
Complete adj CT & RT
↓
Insert implant after RT.