

Gynecomastia

-Dr.sindhu priyanka.D

Consultant plastic and reconstructive surgeon

- Gynecomastia refers to any enlargement of the male breast due to a proliferation of ductal, stromal, and/or fatty tissue
- Pseudo gynecomastia

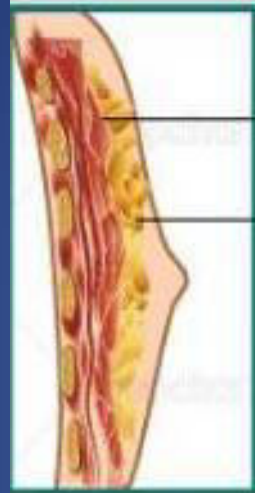
One of the top 5 esthetic procedure in practice

Asymptomatic –

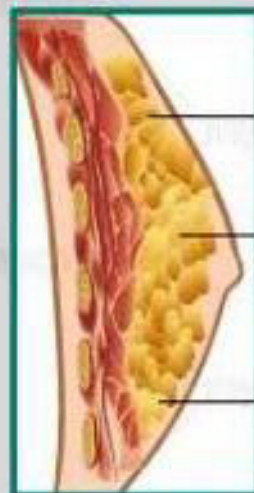
neonates(60-90%)

puberty(60-70%)

increasing age(20-65%)



**Normal male
breast tissue**



Gynecomastia



Causes of gynecomastia

Physiologic	neonatal adolescent aging-related
Drug-induced	antihypertensive agents antibiotics hormones drugs gastrointestinal agents antiandrogens
Decreased androgens	primary (testicular) hypogonadism secondary (central) hypogonadism androgen insensitivity syndrome 5 α -reductase deficiency 17 β -hydroxysteroid dehydrogenase deficiency Klinefelter syndrome
Increased estrogens	adrenal/testis tumor testicular tumor human chorionic gonadotropin-secreting tumor familial aromatase excess syndrome (obesity)
Other	malnutrition cystic fibrosis alcoholism psychologic stress myotonic dystrophy herpes zoster infection

Table 2

Medications Implicated in Gynecomastia

Hormones

Androgens	Flutamide
Chorionic gonadotropin	Progestins
Diethylstilbestrol	Testosterone
Estrogens (including topicals)	

Antiandrogens

Finasteride	Gn-RH analogs
-------------	---------------

Antimicrobials

Isoniazid	Metronidazole
Ketoconazole	

Antireflux drugs

Cimetidine	Omeprazole
------------	------------

Cardiovascular drugs

Calcium channel blockers	Methyldopa
Captopril	Reserpine
Digoxin	Spironolactone

Psychiatric drugs

Benzodiazepines (clonazepam)	Tricyclic antidepressants
Phenothiazines (thioridazine)	

Drugs of abuse

Alcohol	Opiates/opioids
Amphetamines	(buprenorphine, methadone)
Anabolic steroids	Marijuana (suspected)

AIDS and HAART chemotherapy

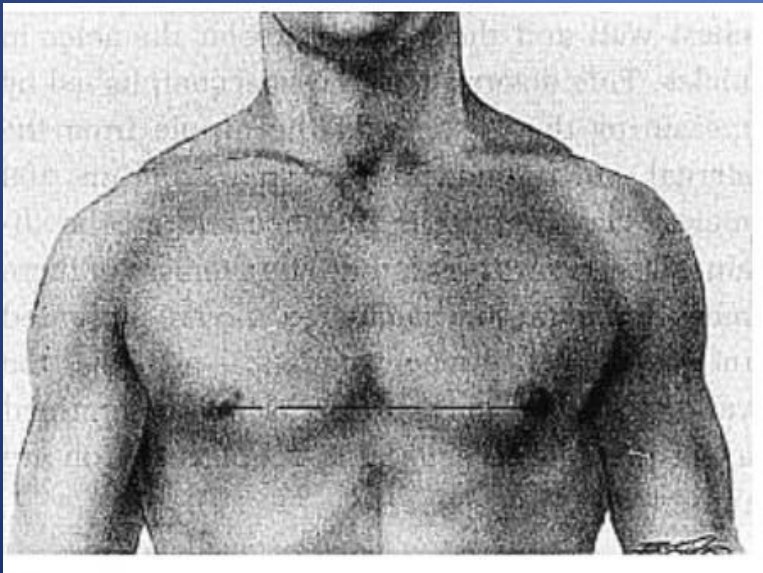
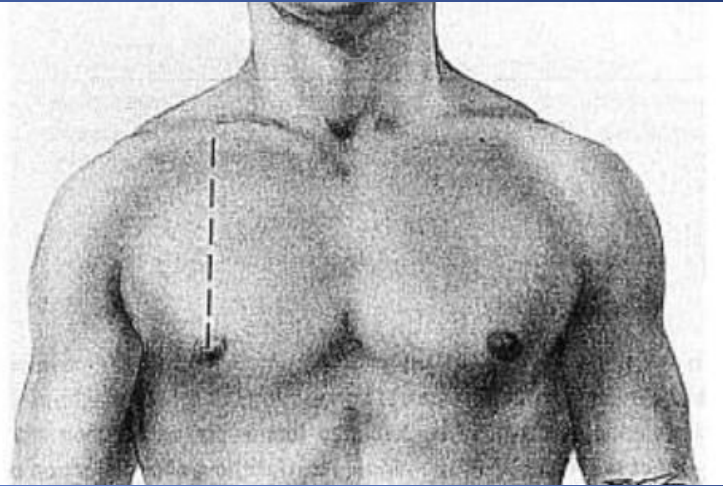
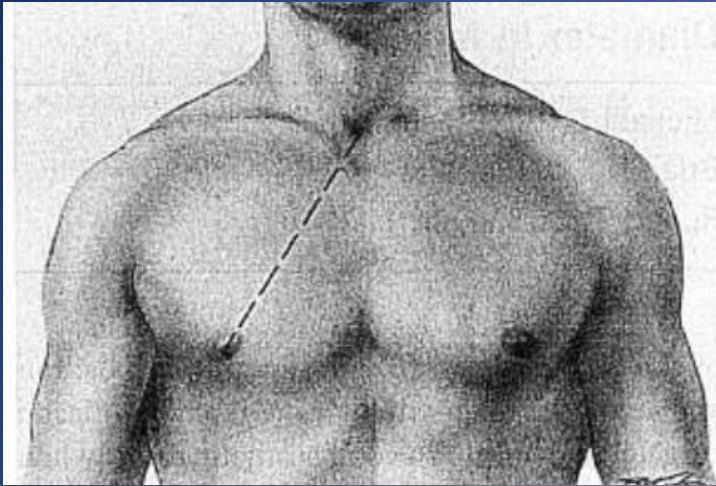
Antiretrovirals (especially zalcitabine and didanosine)

Miscellaneous

Penicillamine	Phenytoin
---------------	-----------

Gn-RH, gonadotropin-releasing hormone; HAART, highly active antiretroviral treatment.

Source: References 17, 23.



(A) The average distance from the sternal notch to the nipple is 20 cm, range 19 to 21 cm. (B) The average distance from the midclavicular line to the nipple is 18 cm, range 17 to 21 cm. (C) The average internipple distance is 21 cm, range 20 to 24.5 cm.

CLASSIFICATION

- **Simon classification**
- Grade 1-Small enlargement, no skin excess
- Grade 2aModerate enlargement, no skin excess
- Grade 2bModerate enlargement with extra skin
- Grade 3Marked enlargement with extra skin
- Simon BE, Hoffman S, Kahn S. Classification and surgical correction of gynecomastia. Plast Reconstr Surg 1973;51:48.

- Rohrich classification
- Webster classification
-
-

- history
- Clinical examination
- What the patient desires...
- Classify the grade
- Counseling of patient
- Preoperative marking
- Post operative care

Pharmacological Treatment

- (1) blocking the effects of estrogens on the breast (e.g., clomiphene, tamoxifen, raloxifene),
- (2) administering androgens (e.g., danazol),
- (3) inhibiting estrogen production (e.g., anastrozole, testolactone).

Liposuction



More of an art

The superficial layer is composed of small dense pockets of fat separated by vertical well-organized fibrous septa.

The deeper fat layer is organized more loosely, with looser areolar fatty tissue interspersed with less regular fascial septae intervening between the pockets.

Vertical septa originate from the fascia and extend upward toward the dermis

Technique of liposuction



Infiltration
Liposuction



Quito formula for infiltration

Areas to be liposuctioned	Body surface, %	Total body surface for liposuction, %	Constant volume, mL	Approximation of the total volume (mL) to infiltrate subcutaneously for each area
Neck	1	1	2.4	168
Breast, each one	2.5	–	2.4	–
Arm, each one	2	4	2.4	336 + 336 = 672
Upper abdomen	4.5	4.5	2.4	756
Lower abdomen	4.5	4.5	2.4	756
Flank/hip, each one	4	8	2.4	672 + 672 = 1344
Upper back	4	4	2.4	672
Lower back	4	4	2.4	672
Buttock, each one	3	–	2.4	–
Inner thigh, each one	2	–	2.4	–
Anterior thigh, each one	2	–	2.4	–
Lateral thigh, each one	2	–	2.4	–
Back thigh, each one	2	–	2.4	–
Knee, each one	1	–	2.4	–
Leg, each one	6	–	2.4	–
Weight: 70 kg				
Total percentage of body surface for	71	30		
*Volume of solution to infiltrate = weight (kg) × percentage of body surface for liposuction × 2.4 (mL)				

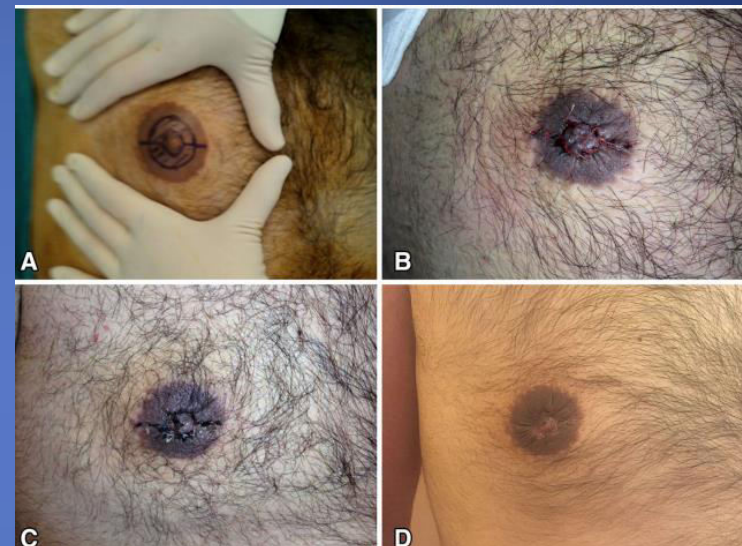
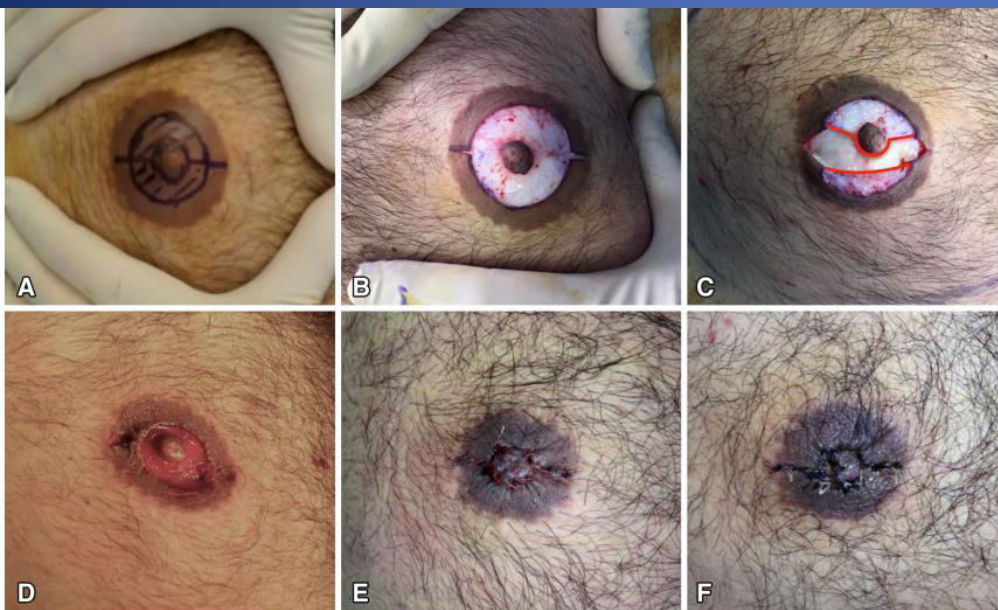
Wt(kg)xpercentage of body surface for liposuction x2.4 (ml)

GRADE 1



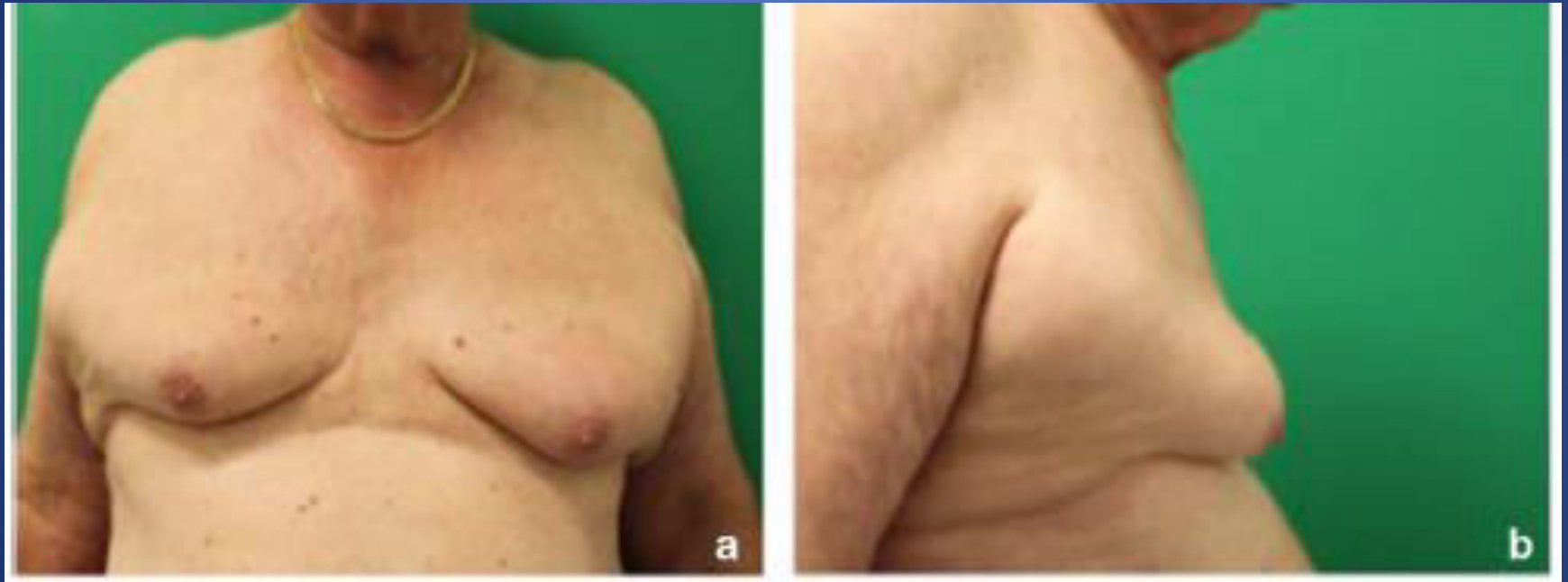
MILD VARIANT
LIPOSUCTION
ALONE +/-
EXCISION

Atiyeh, B. S., Chahine, F.,
El-Khatib, A., Janom, H., &
Papazian, N. (2015).
*Gynecomastia: Simultaneous
Subcutaneous Mastectomy and
Areolar Reduction with
Minimal Inconspicuous
Scarring. Aesthetic Plastic
Surgery, 39(6), 916-921.*
doi:10.1007/s00266-015-0567-
8

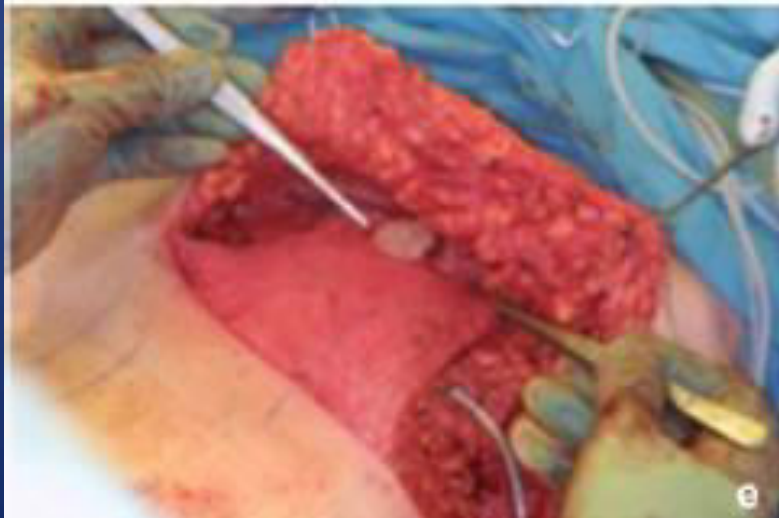




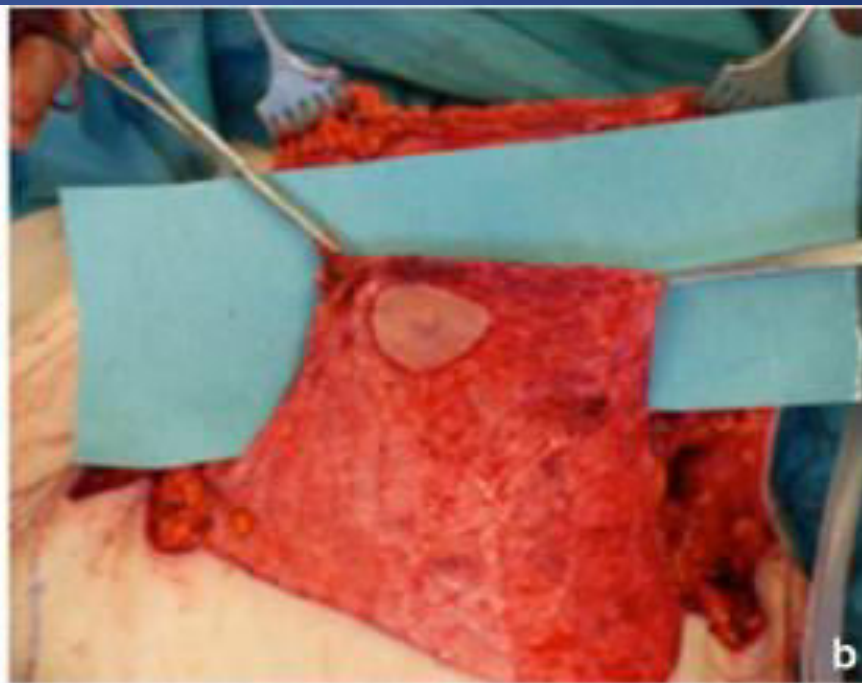
Severe gynecomastia



Inferior pedicle breast reduction



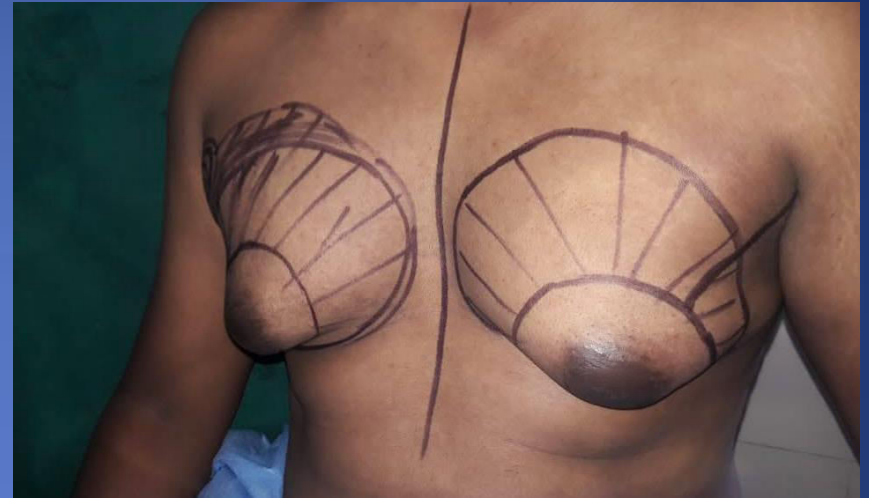
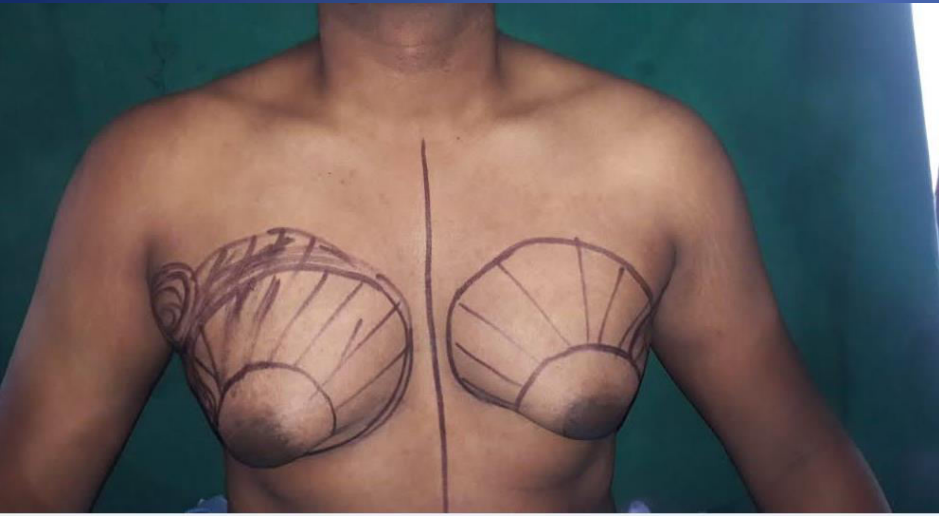




Post bariatric weight loss



Bilateral gynecomastia with markings

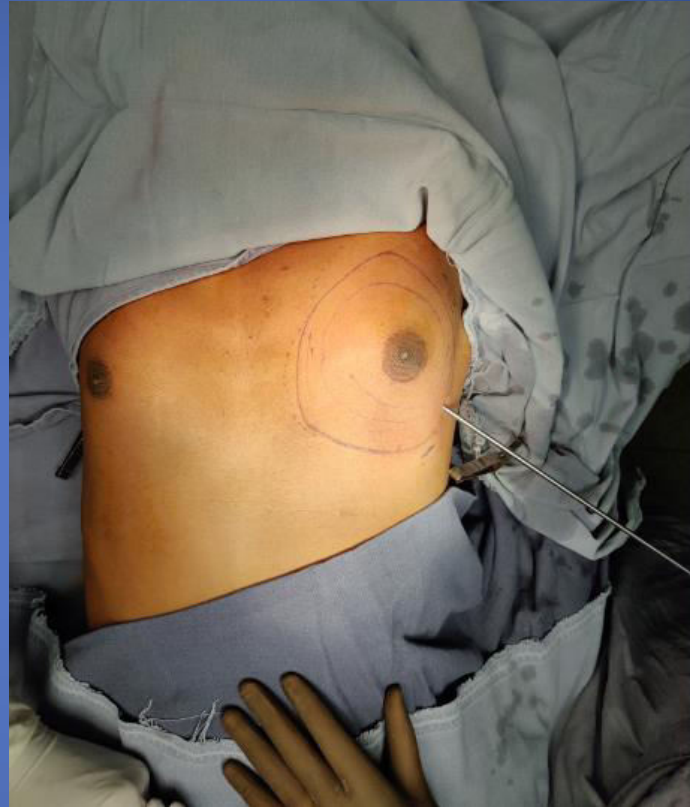
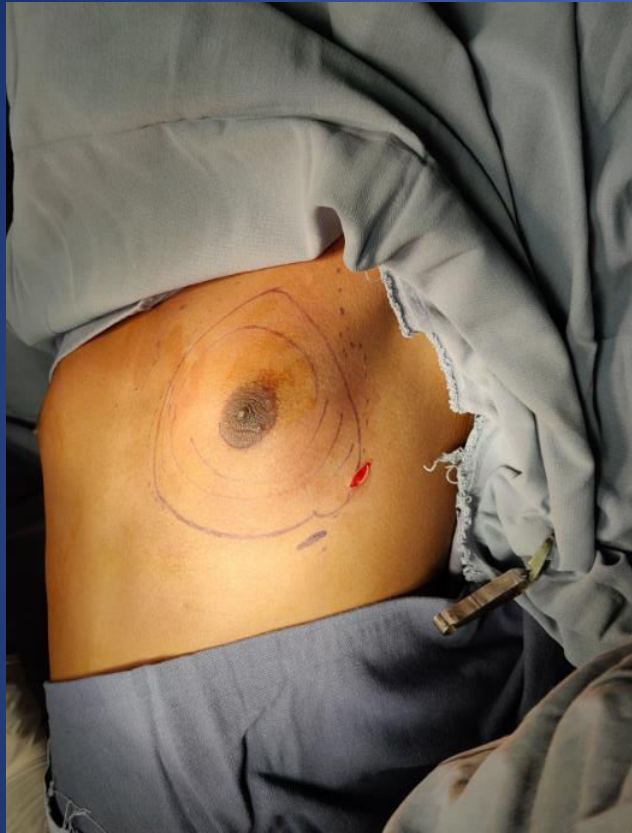


After liposuction and gland excision



Unilateral gynecomastia







Infiltration

Tumesence
1ltr RL+10ml of
0.5%bupivacaine+10ml of 2%plain
xylocaine+1 ampule of adrenaline



sub areolar incision



Immediate postop



Pod 5



2 weeks postop



postop care

adequate analgesia

antibiotics

compression garment

avoiding heavy weights

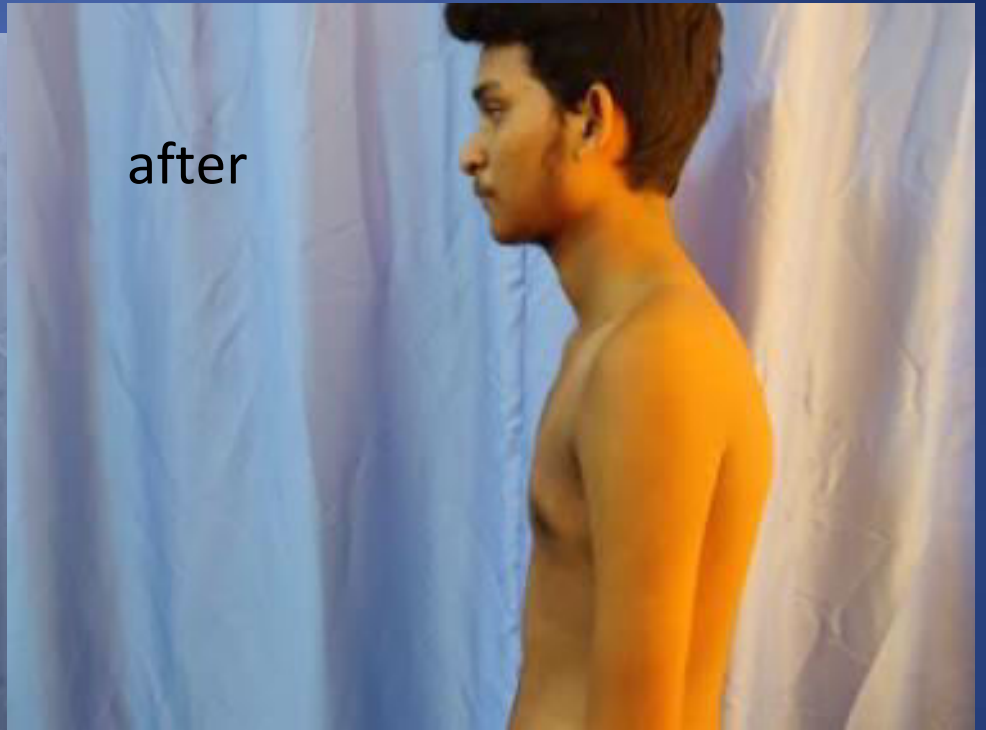
and pec exercises



before



after



Thankyou