

Original Article

Peri-areolar Breast Augmentation.

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Abstract:

Breast enlargement is the commonest aesthetic surgery procedure. The two commonest routes for breast augmentation are via the periareolar and inframammary incision. To avoid scars being evident, the periareolar incision is a good choice. If areolar diameter is small, the patient will not qualify for periareolar augmentation. Marking is done with the patient in an upright position. Incision is usually made in the inferior half of the areolar margin. The Sub pectoral pocket is developed deep to the fascia but superficial to the muscle fibres. The cavity is irrigated thoroughly and dissection on the opposite side is done. Gloves are changed and implants inserted. 3-0 Prolene was used to give a water tight closure in the deepest layer, avoiding any inadvertent bite into the implant. Superficial layers are closed by interrupted stitches of 3-0 Monocryl. Followed by a running subcuticular 3-0 Monocryl. 412 breast augmentation via a periareolar incision was done, from Jan 2012 till August 2022. Healing was satisfactory in most cases in unmarried girls. The periareolar incision, if given accurately, usually yields almost imperceptible scars. So this approach is a favourable choice for many, especially those who are unmarried.

Keywords: Peri-areolar Breast Augmentation, Breast enlargement

Introduction:

Breast enlargement is the commonest aesthetic surgery procedure in the world today. Global statistics of ISAPS reveal that in 2018, more than 18,00,000 breast enhancement procedures were done all over the world. The two commonest routes for breast augmentation are via the periareolar and inframammary incision. The goal of breast augmentation has remained the same over the last 45 years since it was first described by Cronin and Gerow.¹ The ultimate aim is to enlarge breasts which look like real breasts in appearance, form and function, both at rest and with movements and produce an

undetectable result with no obvious signs of surgical enhancement and scars not being clearly evident.

In developing countries, unlike the west, scars on the breast are disliked and the incidence of pigmented and hypertrophic scars is much higher in the darker skin. Females, especially unmarried ones, are wary of any surgical scars on the breasts. This make the periareolar incision a commoner choice in the Asian subcontinent and middle-east.

Materials and methods:

The choice of the pocket is important but the author prefers placing the implant in the sub facial plane, which gives a better covering to the superior edge of the implant and makes it more natural, combining the advantages of both the sub glandular and sub muscular placement. A minimum of 1 inch thickness of breast tissue at the upper pole of the breast is necessary for a subfascial pocket.² If anything less, it is recommended placing the implant in the sub muscular plane. Also, whilst marking the pocket

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it is important to note that the uppermost border of the breast is usually never above a line drawn across the apex of the anterior axillary fold and this should not be transgressed, as an implant placed above this does not look natural. If the areola is less than 3 cm in diameter, the candidate may not be a good candidate for periareolar augmentation, and a different route should be preferred.

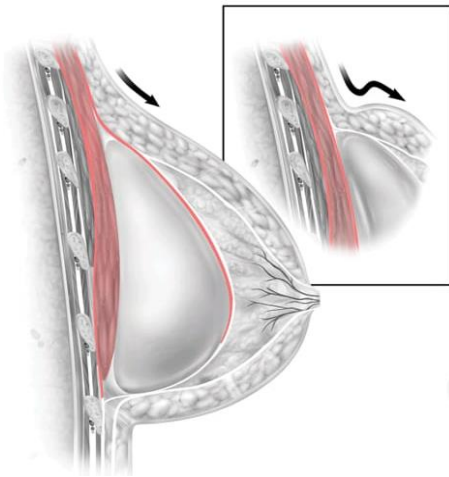


Fig. 1. Advantage of subfascial placement of implant, giving a smoother transition to the upper edge of the implant, unlike the sub glandular position (See inset)

Marking is done with the patient in an upright position. The site of the incision must be accurately placed. Marking the incision at the junction of the colour change of the skin is very important to keep it well hidden for even an error of 1.5 mm will be evident when the wound has healed. It is best to use loupe magnification whilst marking, and it should be done preferably by dots rather than a line for the surgeon might err in incising along the upper or lower border of the line and stray away from the exact location on the skin.

After proper dressing and draping, injection Adrenaline with 2% Lignocaine is infiltrated into the proposed incision, usually in the inferior half of the areola for 4.5 to 5 centimetres. The incision may extend from the 3 o'clock to the 9 o'clock position if required.

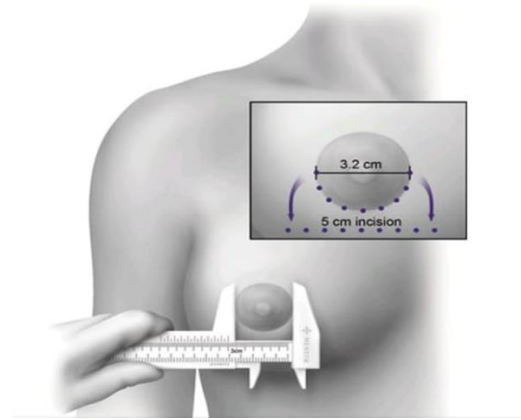


Fig. 2: Marking of the incision by dots on the areola

The tissue just below the nipple areola is pinched with the non-dominant hand and the tissue tension helps in defining the precise division of the skin at the marked line. Grasping the tissue under tension prevents sliding of the tissue planes below. An incision is made with scalpel blade into the dermis after which the dissection is continued using the cautery. Some surgeons prefer dissecting in the subcutaneous plane of Scarpa's fascia up to the lower border of the breast before making the pocket. The author usually cuts through the breast tissue parallel to the lactiferous ducts till the pectoral fascia is visible. Studies have shown no difference in rate of infection due to contamination between incision through the breast gland and other incisions. A fine nick is made in the pectoral fascia and a pocket is developed deep to the fascia but superficial to the muscle fibres. The fascia is usually thicker and more robust at and above the level of the nipple but thins out in inferior pole and dissection here may be difficult. An adequate pocket according to the pre-planned dimensions is created and proper hemostasis is done. The fibre optic illuminated retractor is very useful and long armed insulated bipolar diathermy forceps help in achieving hemostasis without any injury to the adjacent tissue. The cavity is irrigated thoroughly, and may be packed with sterile mops before dissection on the opposite side is done. When both pockets have been created, the side dissected earlier is thoroughly examined to eliminate any bleeding points or collection and also ensure that it is adequate in all directions and dimensions. The pocket is irrigated with Betadine solution (5%

providing iodine) which is the author's choice and after inspecting the opposite side, gloves are changed which are powder free. The area is prepped again and is ready for inserting the implants. The earlier dissected pocket is inspected and all residual Betadine is cleaned. No bleeding points or collection should be present and any bits of cotton fibre should be carefully checked and removed for these add to chances of capsular contracture.



Fig.3: Subfascial pocket after dissection with the visible bare muscle

The implant packet is opened and checked for integrity and size before insertion. The assistant holds retractors on both margins and the implant is handled only by the surgeon who inserts it inside the pocket using rotational movement from 3 o'clock towards 12 o'clock of the implant. It gradually enters the pocket and usually takes 20 to 30 seconds to insert an implant on any side. The implant must be checked to be free of wrinkles and the pocket good enough to accommodate the properly oriented implant.



Fig. 4: Implant after placement via periareolar incision

Initially, limited dissection of the pocket is done on the lateral side. Its lateral extent can be easily

extended later if the pocket is found to be inadequate. The incision is temporarily packed with Betadine soaked gauze whilst the implant on the opposite side is inserted. Prior to closure, with the help of the anaesthetist, it is a good practice to get the patient to sit up in an upright sitting position so that the shape and symmetry of the breasts can be assessed from the foot end of the table and any abnormality in shape can be addressed immediately, since they will not resolve spontaneously after surgery.

Closure begins by holding the deeper tissue with 6 small curved mosquito forceps. Sutures are placed with 3-0 Prolene to give a water tight closure in the deepest layer. A specially designed tongue depressor like instrument designed by my colleague Dr. S.S. Chatterjee is useful to depress the implant peeping out below and avoid any inadvertent bite into the implant.



Fig.5: Dr.S.S.Chatterjee's tongue shaped retractor

Subsequently a second layer of interrupted sutures with 3-0 Prolene is given to oppose the breast tissue. The author has been using this for the last 5 years to prevent herniation of the implant through the breast tissue with time. The superficial layers are closed by interrupted stitches of 3-0 Monocryl in the subcutaneous plane followed by a running subcuticular 3-0 Monocryl to close the incision.

Dressing is applied on both the incisions and an elastoplast figure of 8 bandage is used to keep both the breasts in place and minimise movement in the initial postoperative period. The patient is discharged on the same day, and asked to avoid sleeping on the sides, and is given antibiotics, usually amoxicillin with clavulanic acid, for 10

days and some pain killers to keep her comfortable.



Fig. 6. Invisible periareolar scar after 3 years of breast augmentation

The bandages are opened on the 5th day and are replaced by smaller bandages, which can be waterproof, to allow the patient to have a shower. The patient is advised to wear a cotton bra under a snugly fitting sports bra which is worn around the clock for the first two months. The patient is advised to minimise movement of the arms in the first 3 weeks and avoid any strenuous activity or raising the arms above the shoulder to latch a door or do anything similar. They are also advised to wear front open clothes to avoid raising their arms. Postoperatively massaging of the breasts is done from the end of the third week and is done for 10 minutes twice daily by the patient herself to allow good movement of the implants and also keep them soft and lower chances of capsular contracture. The patient is also advised to sleep on the chest for two hours daily which can be at broken intervals.



Fig. 7A. Patient before breast augmentation

Fig. 7B. Periareolar scar after 2 years of breast augmentation

Results:

412 patients underwent breast augmentation via a periareolar incision from Jan 2012 till date. Healing was satisfactory in most cases, with delayed healing noticed in patients where the NAC was small and the incision less than 4 cm with an implant bigger than 300 cc introduced. 2° sutures were needed in 13 cases, 11 of which were transgender with a comparatively small NAC. More than 90% of patients were very happy with the scar. Few had their surgery before their wedding, and the scar was not detected by the husband even after 4 years of their marriage. Lactation was normal in all women who had children subsequent to breast augmentation. Sensibility was not altered after the procedure and no patient complained about it.^{3,4,5}

Only 1 transgender patient had Grade 4 capsular contracture after the procedure and had healing problems with discharge from the incision site. A few patients thought their breast felt a little firm, but no capsular contracture beyond Grade 2 was seen. Almost all patients were very happy with the feel and shape of the breasts.

Discussion:

A visible scar on the breast is a big taboo, particularly in the Indian society, and in Asia. This is even more in unmarried girls for men are apprehensive about marrying someone who has had breast surgery.

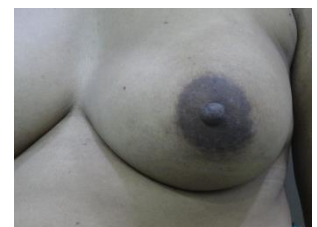
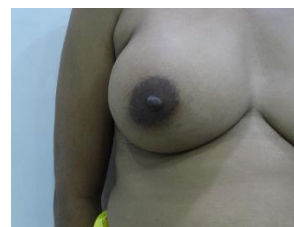


Fig. 8A. Periareolar scar after 2 years of breast augmentation (Right breast)

Fig. 8B. Periareolar scar 2 years after breast augmentation (Left breast)

The inframammary scar is always visible

however well it may be done. The periareolar incision, if given accurately, usually yields almost imperceptible scars. Also the clothing and lingerie used by the society here makes the periareolar incision a favoured choice for many patients.

Conclusion:

Since there is a clear advantage of periareolar incision in providing scar which is not readily visible, this approach is a favourable choice for many, especially for including those who are unmarried.

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