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Editorial

Breast Implant Associated Lymphoma – a Pressing Concern for Plastic Surgeons

Anjan Kumar Deb[1]

Since Cronin and Gerow started breast implant surgery in 1960s, plastic surgeons throughout the world felt safe about the surgery[1]. Multiple scientific studies revealed that breast implants were not associated with higher risks of developing breast cancer. But recently Breast Implant Associated - Anaplastic Large Cell Lymphoma (BIA-ALCL) has been in the news. In 1997

An ultrasound can detect the presence of fluid, and if present, a small amount can be aspirated with a needle and tested. Should tests called CD30 and ALK be positive, a diagnosis of BIA-ALCL will be considered[2]. If the tests are negative, the fluid collection is considered benign. Development of seroma is not uncommon around breast implants. It is important to differentiate them from those associated with ALCL.

In the majority of individuals, BIA-ALCL may be treated surgically by removing the implant and capsule. Although additional medical professionals may be consulted, radiation treatment or chemotherapy are typically not required[3]. Textured implants were found to be associated with BIA-ALCL. Since the incidence is low there is no recommendation for removal of textured implants by the medical agency or health ministry. BIA-ALCL is an unusual entity of the CD30-positive T cell lymphoma arising around breast implants[4].

Thorough evaluation and workup of suspected cases are required to confirm the diagnosis. Therefore, routine check-up of the breast implant is important[5].

Surgeons should advice their patients about BIA-ALCL, especially in regards to selection of implants and more importantly postoperative check-up to exclude/early detection of this rare disease. The patients should also be informed about the importance of changing the implants after ten years

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Original Article

Vascular Anomalies involving Lip: experiences at Rajshahi

Afroza Nazneen [1]

Abstract:

Background: Vascular anomalies in the head and neck area is not rare. It is especially common for vascular anomalies to involve the lip. The lips are functionally and aesthetically very important component of the head and neck area. A retrospective analysis of data from our center was performed to understand the characteristics and treatment requirements of vascular anomalies of the lip and to establish the reconstructive approaches to make the involved lip aesthetically more acceptable.

Methods: A retrospective study was performed on patients diagnosed with vascular anomalies of the upper or lower lip from July 2015 to June 2021. Using clinical photographs, radiologic findings, and patient records, the diagnosis of each case and the location of the vascular anomaly were recorded along with information about treatment and follow up. Patients' satisfaction level was observed.

Results: A total of 40 patients were diagnosed with vascular anomalies of lip over this time. Surgical treatment without embolization, sclerotherapy, medication only and observation were the treatment strategies adopted in these cases.

Conclusions: Vascular anomalies of the lip should be diagnosed accurately. Several techniques were used to treat vascular anomalies of the lip. When surgical excision is indicated for the correction of vascular anomalies of the lip, the aesthetic and functional characteristic of the lip should be considered.

Keywords: Vascular Anomalies / Lip / Clinical approaches

Introduction:

Arteriovenous malformations (AVM) are structural vascular anomalies which occur as the result of errors in the morphogenesis of vessels between 4th and 6th weeks of gestation[1,2]. Histologically, AVMs are composed of numerous aberrant arteriovenous shunts without normal interconnecting capillary bed and these tangled vessels consist of multiple arterial and venous compartments without muscular support, endothelial proliferation, and giant cells. They are usually present at birth but sometimes may not be clinically evident. They have a normal growth rate and endothelial turnover, showing proportionate growth in relation to body volume and present no signs of spontaneous involution. On occasions, rapid expansion can occur following trauma, Infection, and hormonal changes including puberty or pregnancy[3–10].

AVMs are rare lesions and approximately half of them are in head and neck region. They can be asymptomatic or compress and destroy the surrounding tissue to cause functional and

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cosmetic problems like facial asymmetry, pain, bone destruction and unexpected hemorrhage. With this circumstance, treatment is inevitable and varies between nonsurgical and surgical modalities e.g, using sclerosing agent like ethanol or glue, ligation of feeding arteries, curettage and resection. Nowadays, surgical resection following endovascular embolization is the treatment of choice and immediate reconstruction of the remnant defect is necessary [1, 2, 6, 8,11, 12]. At our center we did surgical excision without embolization, and we advised propranolol drug at follow up period.

Vascular anomalies can occur throughout the body but are more common in the head and neck than in the extremities [13]. Vascular anomalies occur more frequently in the lips than in any other single area of the body. The lip is important both functionally and cosmetically. Thus, vascular anomalies of the lips can affect the facial anatomy and result in anatomical distortions, depending on the degree of severity. In sense of the functional and aesthetic importance of the lips, we always preferred surgical excision of the vascular lesion followed by reconstruction to restore its anatomy as possible.

METHODS

In this retrospective study, we screened patients of all age group who visited our OPD between July 2015 and June 2021 diagnosed as vascular anomalies of the lip. The clinical photographs and radiologic findings of each patient were analyzed, along with the location and of the vascular anomaly. We collected patient histories and performed physical examinations, determined the vascular anomaly subtype using Doppler ultrasonography, and assessed the extent of the lesion using magnetic resonance imaging (MRI).

When surgery was performed, histological findings were confirmed through biopsy[3]. Treatment outcomes were continuously assessed, and treatment was repeated when necessary. Surgical excision without embolization, sclerotherapy, medication only, and observation were employed to treat vascular anomalies. Patients received multiple treatment in cases involving postoperative marginal remission or recurrence, as noted through observational monitoring. The outcomes were reviewed and were the basis for formulation of an algorithm for the clinical treatment of vascular anomalies.

RESULTS

A total of 40 patients were diagnosed with vascular anomalies of lip in our center.

Case:1 (a) Baby with upper lip AVM, (b) 2 years after excision

The age range of the patients was 10 months to 55 years. 16 of the patients were male and 24 were female. The follow-up duration was ranged 1–36 months.

Case 2: upper lip AVM, (a) before and (b) after excision

The anomaly was in the lower lip in 07 patients,

the upper lip in 29 patients, and both lips in 04 patients. Most of them were satisfied with this drug therapy. A total of 17 patients underwent surgical excision without embolization, 14 received sclerotherapy only.

Case 3: (a) Thrombosed AVM, (b) 6 months after excision

We gave a trial on propranolol therapy to all 40 patients. All were observed for improvement as well as further regression.

Case 4: (a) upper lip AVM, (b) 3months after operation

In 27 of the patients, treatment resulted in nearly complete remission, and 09 experienced recurrence and required other procedures, such as sclerotherapy or additional surgical excision. In addition, 04 were lost to follow-up after three months.

Case 5: AVM both upper and lower lips (a) before and (b) after operation

DISCUSSION

The lip has special anatomical characteristics, such as the white line, white skin roll, red line, vermilion, and Cupid's bow[14]. First, the vascular anomaly subtype should be diagnosed using Doppler ultrasonography, and the extent of the lesion must be determined by MRI to guide the direction of treatment.

Case 6: AVM lower lip with gross deformity (a) before (b) after operation

Various masses can develop on the lips, including malignancies and neurologic tumors, such as neurofibromas as well as vascular tumors and malformations. In occasional cases where the diagnosis was difficult or uncertain, a definitive diagnosis was made through biopsy. The most frequent diagnosis in this study was hemangioma, followed by capillary malformation and arteriovenous malformation. Hemangioma is the most common tumor of infancy, and 65% of such

cases of hemangioma involve the head and neck region [15].

Case 7: Neglected AVM lower lip (a) before and (b) after operation

Histologically hemangioma can be divided into two subtypes: hemangioma of infancy and congenital hemangioma. Hemangioma is caused by vascular endothelial cell hyperplasia, the cause of which is not yet clearly understood. Propranolol is commonly administered to treat cases of hemangioma before involution[16,17], and surgical excision or sclerotherapy is considered after involution.

Venous malformation occurs due to errors in vascular morphogenesis. Various types of venous malformation occur, ranging from small and well-localized masses to diffuse. According to Boon et al [18], 47% of cases of venous malformation occur in the head and neck region, 40% on the extremities, and 13% on the trunk. Furthermore, venous malformation is typically sporadic and 90% of cases show a solitary lesion [19]. Venous malformation also occurs on the lip, presenting as a solitary lesion. Sclerotherapy is the first choice for the treatment of venous malformation, but surgical excision may be performed in cases where the lesion is small, solitary, and well localized.

Capillary malformation is a vascular malformation known as a port wine stain that can occur throughout the body. It can be well localized or extensive. Pulsed-dye laser treatment is the first line treatment for capillary malformation, although CO2 laser can be also effective. Pulsed-dye laser treatment is known to be more effective in treating capillary malformation in the head and neck region than in the extremities [20-22]. Surgical excision can be performed when the area is either functionally or aesthetically important.

Arteriovenous malformation is caused by direct blood shunting from an artery to a vein due to the absence of a capillary bed. The artery and vein can be directly connected by a fistula or indirectly connected by an abnormal vessel channel termed nidus. This occurs frequently in the central nervous system, and the most common extra cranial site is the head and neck [23,24]. Therefore, arteriovenous malformation is commonly observed on the lip and a palpable thrill or bruit may exist. Arteriovenous malformation of the lip is also diagnosed using Doppler ultrasonography and MRI, after which a treatment plan is proposed. The main options for the treatment of arteriovenous malformation are surgical excision with or without preoperative embolization and sclerotherapy.

Indications for the surgical excision of vascular anomalies of the lip must be strictly applied. Surgical excision should be considered with care, because the lip has a diverse and unique anatomy. And damage to these structures during excision may result in aesthetic problems [25].

Moreover, considering the common recurrence of vascular anomalies and invisible pathological lesions, complete resection is not guaranteed, so before surgical treatment adequate counselling is mandatory.

CONCLUSION

Treatment options of AVM on lip or near lip area include surgical excision, sclerotherapy, laser therapy, and medical treatment. Sometimes combination therapy may be needed. The unique anatomical characteristics of the lips should be considered when performing surgical excisions as lip result important both functionally and aesthetically.

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Original Article

Peri-areolar Breast Augmentation.

Manoj Khanna[1]

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. Ifthe 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.

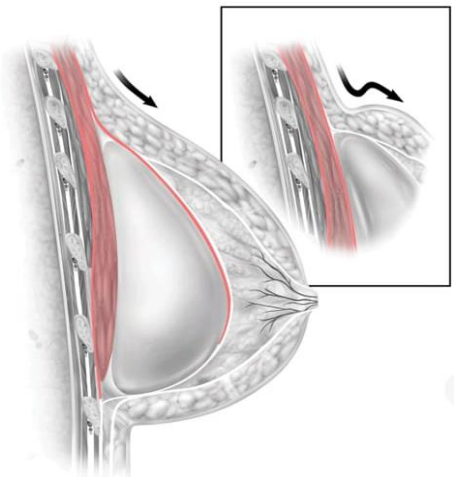

Fig. 1. Advantage of subfascial placement of implant, giving a smoother transition to the upper edge of the implant, unlike the sub glandular position (See inset)

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.

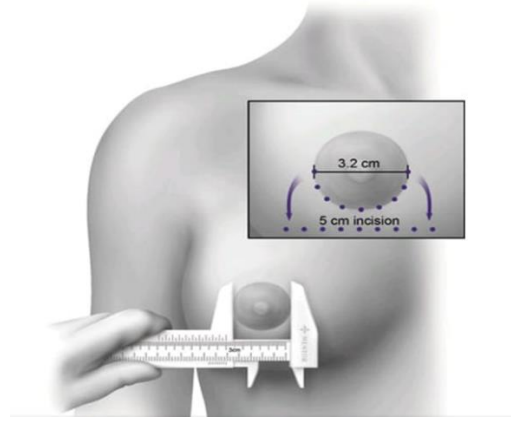

Fig. 2: Marking of the incision by dots on the areola

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 bepacked 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 sizebefore 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 implantmust 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 isdone on the lateral side. Its lateral extent can be easily extended laterif the pocket is found to be inadequate. The incision is temporally 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.

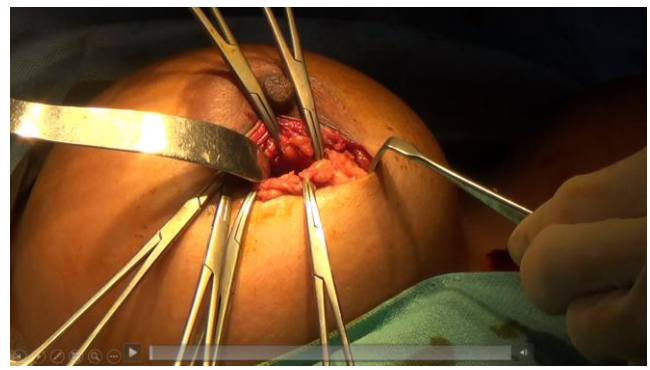

Fig.5:Dr.S.S.Chatterjee’s tongue shaped retractor

Subsequently a second layer of interrupted sutures with 3-0 Proline 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 periareoalar 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, 11of 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 scarwas not detected by the husband evenafter 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.

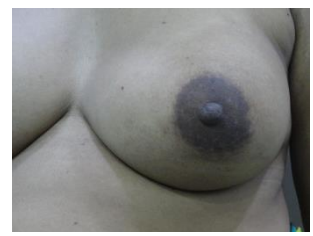

Fig. 8A. Periareolar scar after 2 years of breast augmentation (Right breast)

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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Original Article

Female Genital Rejuvenation Surgery: A Study of 34 Cases.

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Abstract:

Female genital rejuvenation surgery is a rapidly growing sub-specialty in the world. There is also a steady rise in demand for these procedures in Bangladesh. In our series variety of procedures were performed on 34 patients from January 2017 to June 2021 labiaplasty was mostly performed cosmetic procedure and the indication of vaginoplasty was more to improve sexual function. Most of the procedures were done as a day case surgery or with a minimal hospital stay. A combination of procedures to address individual components leads to a better cosmetic and functional outcome.

Keywords: Genital Rejuvenation Surgery, labiaplasty, Minimal hospital stay

Introduction:

Aesthetics is what has been used in literature or in many scientific papers thousand times more for women than men. As a whole cosmetic surgery is already well popularized among the ladies around the globe irrespective of age, ethnicity and religion[1]. Female aesthetic genital surgery is now also a point of interest among our population and a rapidly growing sub-specialty in the globe as well.

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A variety of surgical, non-surgical or combined procedures that include Labioplasty, Vaginoplasty, Hymenoplasty, Perineoplasty, Pubic enhancement etc are well popularized now a days. However, at present we will consider the surgical procedures only. We believe that these interventions provide psychological and functional improvement in sexual stimulation and satisfaction.

Materials and methods

A variety of procedures were performed on 34 patients from July 2016 to September 2021which are as follows, labioplasty, vaginoplasty, hymenoplasty, and perineoplasty. These were performed either in isolation or as a combo procedure. Patients were from different age group ranges from 21-50 years of age.

Table 1: The demography according to age

Age group (years)	No. of patients %
21-30	3 (8.8)
31-40	23 (67.6)
41-50	8 (23.5)

During their first consultation patient's desire was noted. A detail Uro-Gynaecological history was also recorded. After proper physical examination, planned procedures and their possible complications were discussed in detail with the patient.

A detail record of post-operative recovery and any complications was also observed.

Table 2: Distribution of number of patients underwent different procedures

Procedures	No. of patients %
Hymenoplasty	3 (6.1)
Labioplasty	15 (30.6)
Vaginoplasty	17 (34.7)
Perineoplasty	3 (6.1)
Vaginoplasty with Perineoplasty	3 (6.1)
Vaginoplasty with LP	3 (6.1)
Pubic enhancement	5(10.2)
Different surgical techniques	49 Procedures

Labioplasty

It refers to a reduction of labia minora by excision of excess tissue and the cut edges are then sutured together with absorbable suture usually in a running technique. While performing this it should be kept in mind to limit the amputation level to a minimal width of at least 1 cm. if it is performed with a smaller minimal width can result in aesthetically unpleasant scarring too close to the introitus causing sensory impairment, chronic pain and dyspareunia [2].

Reduction of labia majora is done either due to primary hypertrophy (volume excess) or due to secondary excess skin (volume loss). In case of volume excess liposuction and wedge excision for excess skin is practiced. In certain situation both the procedures needed to be done simultaneously.

Hymenoplasty

It is usually performed by freshening the edges and approximation of the hymenal membrane with absorbable interrupted suture to narrow the vaginal orifice [3].

Fig 1: Prominent labia minora

Vaginoplasty

The goal of this procedure is to reconstruct the lower third of vagina. In this procedure a portion of mucosa is excised from vaginal fornices surgically to tighten the lower third [4].

Perineoplasty

It involves surgical reconstruction of the vaginal introitus usually with low posterior compartment repair and approximation of the levatorani muscle. A diamond-shaped wedge of tissue is removed and approximation of the levatorani muscles causes an elevated perineum and strengthened perineal body resulting in an improved sexual function [5].

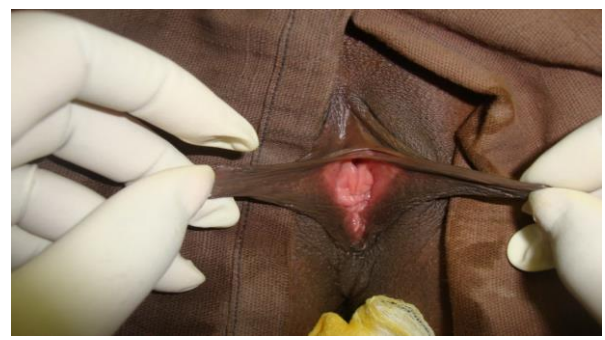

Fig 2: Before and after labiaplasty

Pubic enhancement

It includes pubic lifting and pubic liposuction. In case of pubic lifting, reduction of the mons pubis for ptosis and excess tissue in this area usually done by wedge excision in a transverse direction. This procedure can also be done combined with abdominoplasty. Pubic liposuction is effective in patients without skin excess [6].

Table 3: Post-operative complications

Complication	No. of patients %
Bleeding	0
Hematoma	0
Wound dehiscence	13.7
Scarring	0
Dyspareunia	27.4
Reduced sensation	0

Results

Every patient was asked about their desired outcome at the post-operative follow up visit to grade as "very satisfied", "satisfied" and "not satisfied".

Table 4: Patient satisfaction grading

Patient satisfaction grading	No. of patients	No. of patients %
Very satisfied	17	62.96
Satisfied	9	33.33
Not satisfied	1	3.7

Discussion

Aesthetic surgery of female genitalia is now a commonly discussed topic in media as well as in scientific journals. Successful interventions have further contributed to an increase in demand for this sub-specialty. Since female genital rejuvenation surgery became a common plastic surgeon's job, questions have been raised regarding different techniques, indications and ethics. There are no absolute contraindications although current gynecological disease, sexual dysfunction, unrealistic expectations and smoking are some relative issues [7].

In our studies, majority of the patients ranged from 31-40 years (Table 1). This age group is sexually active and more aware about their body changes. This reminds us that we are living in a global village and an easy communication system have made our patients think like some other parts of the world.

Fig 3: Before and after Perineoplasty

Patients underwent hymenoplasty in our series were very satisfied. With the result. All of them desired a revirgination prior to their marriage. The absence of hymen is not an absulute sign of lost virginity, and the same is true for bleeding atfirst intercourse. A recent study revealed that hymen was intact in 52% of adolescent girls who admitted to have had sexual intercourse. The hymen is a relatively bloodless membrane and it is unlikely to bleed significantly even if it is torn. Violent penile penetration can result in minor laceration of the vaginal wall that appears to be responsible for "blood-stained bedsheet" [8].

In our series second highest number of patients demanded for labioplasty. Rouzier et al reported in 2000 on 163 patients who received a labioplasty and the primary reason was aesthetic dissatisfaction [9]. The vulvar epithelium of labia minora is highly innervated and sensitive. Incision to any part of the genitalia could compromise this sensitivity and its sexual importance. Neuroma

like hypersensitivity has also been reported after surgery in some literature [10].

Highest number of patients in our series desired for vaginoplasty and it was also done in combination with other procedures. During life a good number of women complaints of decreased vaginal sensation, most commonly with a feeling of a widened vagina. In a non-erotic setting, Schultz et al. used an electric shock to test the vaginal sensitivity of 60 participants They concluded that the decreased vaginal sensation must come from a widen vagina causing less friction [11]. Vaginal rejuvenation surgery has been practiced since the mid-fifties, where the gynecologist used to tighten the entrance of the organ with an extra stitch while repairing vaginal and perineal tear or episiotomies after giving birth. At that time, it was named as the "husband's stitch", "husband's knot", or "vaginal tuck" and doctors specifically referred to this procedure as "improving a woman's well-being" [12].

Post-operatively one patient of labioplasty had wound dehiscence had to put few secondary stitches. Dyspareunia was a complaint of two patients in the post-operative period underwent vaginal rejuvenation. This problem was resolved with vaginal stretching exercise and use of lubrication during coitus.

Non-surgical techniques such as Radiofrequency and Lasers have been reported in some literature to be effective in vaginal rejuvenation [13].

We would like to share that a combination of procedures to improve individual component is better than an isolated surgery and leads to a better aesthetic and functional outcome.

Conclusion

It is difficult to draw a line between medically indicated procedures such as vaginal or pelvic reconstructive surgery & elective surgeries such as vaginoplasty & labioplasty. Nowadays both function & beauty are addressed together not as individual. To achieve maximum patient satisfaction and minimal complications, involvement of an experienced, trained surgeon is mandatory. Every surgeon should inform patient about various options, perform psychological evaluation and discuss realistic expectations. The surgeon's skill and comfort level with different techniques must be considered fully. More academic training in this field of aesthetic surgery has now become essential, to ensure proper selection of patients along with better safety of genital aesthetic procedures.

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Original Article

Coverage of The Defects in The Vicinity of Elbow by Reverse Flow Lateral Arm Flap.

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Abstract:

Objective: Reconstruction of soft tissue defects in and around the elbow requires stable and durable coverage in order to initiate early mobilization along with less post- operative complications. This study aimed to evaluate the outcome of reconstruction of soft tissue defect in and around the elbow by Reverse Lateral Arm Flap.

Materials &method: This is a Prospective type of observational study done in the Department of Burn & Plastic Surgery, Dhaka Medical College and Hospital. In this study 15 cases of soft tissue defects around the elbow covered by Lateral arm Flap were reviewed from January 2017 to December 2019**.**

Results: In this study, majority of the respondents were in age group 44-66 years (40%), 9 were male, majority of wound was in cubital fossa (66.66%), most causes of defects for flap coverage were electric burn (5) & burn contracture (5). All the flaps survived well with the exception of 2 where distal 2 cm were lost.

Conclusion: Single stage Reverse Flow lateral Arm Flap is a useful and reliable armamentarium for the reconstructive Surgeon.

Keywords: Reverse Flow, Scar, Contracture, Skin graft, Burn.

Introduction:

Reconstruction of soft tissue defect in and around the elbow is of great concern for the Plastic Surgeons since it is a difficult region to reconstruct from a functional point of view.

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The elbow is also particularly prone to trauma due to its position and high mobility.A multitude of reasons can lead to elbow soft tissue defects including trauma, contracture release, tumor excision, burn, infection and congenital anomalies1[1-3].The principle of reconstructing the elbow defect requires stable and durable coverage with flexible and adaptable tissue, allowing repetitive motion of flexion and extension and authorizing an early mobilization to limit stiffness and contracture risks[4]. Therefore, skin grafts are often not suitable due to the resulting secondary contracture, range of motion limitation and lack of padding over a pressure point.

Considering this, fasciocutaneous flaps from either regional or distant areas are suitable for elbow defect reconstruction and can provide both

stable and durable tissue coverage. Reverse lateral arm flap (RLAF) is one kind of fasciocutaneous flap that has been showing promising result in coverage of elbow soft tissue defect[5]. RLAF is recommend to use in small to medium sized defects over the anterior and posterior aspects of elbow. Katsaroset al. further reported anatomical details and clinical applications of the flap in 1984, and it subsequently gained popularity in the West[6].

The RLAF provides advantages such as being reliable, does not sacrifice major artery, provides good aesthetic result, obviates the need of long-term immobilization, prevents elbow stiffness and provide adequate coverage of medium sized elbow defects [7]. Additionally, it spares the need for skin grafting and donor site wound can be closed primarily up to 6cm[8].

Methods:

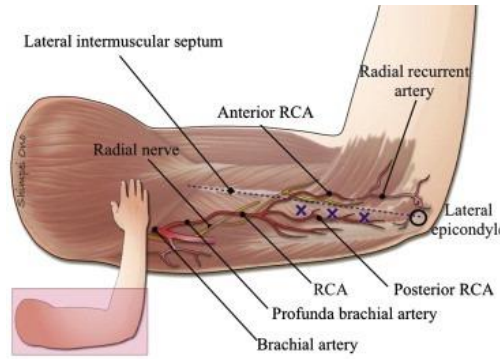
This is a Prospective type of observational study done in the Department of Burn & Plastic Surgery, Dhaka Medical College and Hospital. Total number of 15 patients who were undergoing soft tissue reconstruction in elbow through reverse lateral arm flap were included in this study according to inclusion and exclusion criteria. Informed written consent was taken from each patient. All patients underwent detail history taking, clinical examination & relevant investigations. The procedure was conducted following standard guideline and the patients were followed up post-operatively, during discharge, at 14th, 30th, 45th day and at 3 months. Post-operative management was ensured according to standard guideline. The data collection was done through a pre-structured questionnaire. Collected data were analyzed using the statistical software SPSS-20.

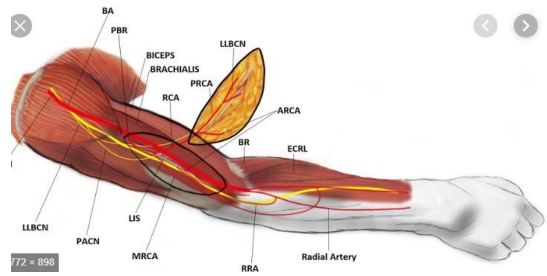
Table I: Sex distribution of the study population (N=15)

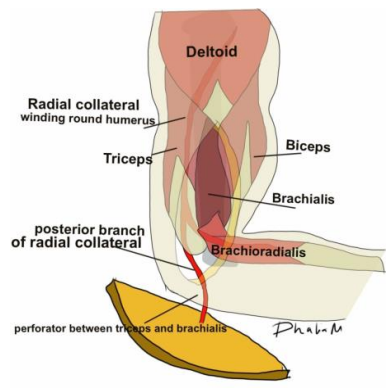
Gender	Number	Percentage
Male	8	53.3%
Female	7	46.7%

Surgical technique:

Surgical technique: The flap is nourished through multiple septocutaneous perforators from the Posterior Radial Collateral Artery (PRCA), a branch of Deep Brachial Artery (Profunda brachii). The largest perforator is 9.7 cm proximal to lateral epicondyle.







Picture: Vascular anatomy

The central axis of the flap is designed on a line drawn from the deltoid insertion near the midpoint of humerus to the lateral epicondyle, which corresponds to the lateral intermuscular septum (LIMS). The flap outline was marked with its upper edge close to the deltoid insertion according to the size of the defect.

The patient is placed in a supine position with the arm lying across the chest and elbow in flexion. The incision was first carried out along the posterior margin of the flap down to the fascia and dissection is continued in a subfascial plane towards the LIMS.

Table III: Site involvement of the study population (N=15)

Site	Number	Percentage
Cubital Fossa	11	73.3%
Back of Elbow	2	13.3%
Lateral Site of Elbow	2	13.3%

The deep fascia is easier to approach from this direction since there are no triceps muscle fibers taking origin from the posterior aspect of the lateral inter muscular septum while fibers of the brachioradialis arise directly from its anterior aspect. During dissection PRCA is visualized close to the insertion of the LIMS into the humerus; it is exposed along the entire length from the deltoid insertion to the lateral epicondyle

Picture: Flap design

Picture: Patient positioning

The artery can easily be located with a hand-held Doppler probe preoperatively if confirmation is required specially in trauma and electric burn patient. The PRCA sends several septal perforating vessels that supply the skin over the lateral arm and they should be meticulously preserved. Two cutaneous nerves are encountered during dissection; the posterior cutaneous nerves of the arm and forearm. Both arise from the radial nerve in the spiral groove and pass superficially within the LIMS. They are frequently sacrificed although preservation is possible with cautious dissection. Care should be taken to avoid injury to the radial nerve which is just anterior to the PRCA for a short distance prior to entering the space between Brachialis and Brachioradialis muscle.

Picture: Flap dissection

The vascular pedicle and the cutaneous nerve branches are dissected out and separated from the Radial nerve and the skin is then incised along the anterior border of the flap. Here sharp dissection is necessary to divide the fibers of the Brachialis

and Brachioradialis muscles from the LIMS and any muscular and periosteal branches of PRCA are clipped and divided or cauterized with bipolar diathermy. The vascular pedicle is transected proximally and the flap is elevated in a proximal to distal direction, ensuring inclusion of the vessels and perforators lying within the LIMS. The PRCA anastomoses with the radial and interosseous recurrent arteries around the lateral epicondyle, and sufficient number of adipose tissues and its underlying fascia should be included with the distal vascular pedicle for the purpose of protection and enhancement of the arterial input and venous drainage of the flap. The skin bridge between the donor site and recipient wound is incised and the distally based island flap is then transposed to resurface the defect.

Picture: Flap elevation

Results:

Results: In this study, majority of the respondents were in age group 44-66 years (40%). The mean age was 35.8±17.08 (SD) years, 9 were male and

No.	Age	Sex	Site	Cause of defect	Wound size	Flap size	Joint movement	Donor site	Flap survival
1	65	M	Back of elbow joint	Tumor	14x11	15x12	Normal	STSG	100%
2	25	F	Cubital fossa	Electric burn	11x5.5	12x6	Normal	Primary closure	100%
3	14	M	Cubital fossa	Electric burn	14x6.5	15x7	Restricted	STSG	Distal 2 cm loss
4	15	F	Cubital fossa	Burn contracture	9x5	10x6	Normal	Primary closure	100%
5	35	F	Cubital fossa	Burn contracture	8x5	9x6	Normal	Primary closure	100%
6	45	M	Cubital fossa	Tumor	9x6	10x7	Normal	STSG	100%
7	15	M	Lateral site of elbow joint	Electric burn	8x4.5	9x5	Normal	Primary closure	100%
8	30	F	Cubital fossa	Burn contracture	11x6	12x7	Normal	STSG	100%
9	50	M	Cubital fossa	Burn contracture	8x4.5	9x5	Normal	Primary closure	100%
10	55	M	Back of elbow joint	Trauma	9x5	10x6	Normal	Primary closure	100%
11	35	M	Cubital fossa	Trauma	11x6.5	12x7	Normal	STSG	100%
12	12	F	Cubital fossa	Burn contracture	10x6.5	11x7	Normal	STSG	100%
13	50	M	Cubital fossa	Burn contracture	11x7.5	12x8	Normal	STSG	100%
14	31	F	Lateral site of elbow joint	Trauma	10x6.5	11x7	Restricted	STSG	Distal 2 cm loss
15	60	M	Cubital fossa	Electric burn	9x6.5	10x6	Normal	STSG	100%

6 were female. Majority of wound was in cubital fossa (66.66%). The flap coverage required in 5 patients for electric burn, 5 patients for burn contracture, 3 patients for traumatic wound and 2 patients for malignant disease. All respondents' dominant hand was right hand. The dimension of the wound ranged from 8 to 14 cm in length with a mean length of 10.13 cm and from 4.5 to 11 cm in width with mean value of 5.8 cm. The dimension of the flaps ranged from 9 to 15 cm in length with a mean length of 11.13 cm and from 5 to 12 cm in width with mean value of 6.8 cm.

All the flaps survived well with the exception of 2 where distal 2 cm were lost. The problem was solved by split thickness skin graft. We used SPY technology for the flap with the highest dimension (15 cm x 12 cm) to see its chance of survival after elevation and inset of the flap. In nine cases donor sites were closed by split thickness skin graft. Aesthetic results of the donor site were satisfactory. After 3 weeks most of the patients gained the full range of movement of the elbow joint except two joints.

Table IV: Cause of the study population (N=15)

Cause	Number	Percentage
Burn Contracture	5	33.3%
Electric Burn	5	33.3%
Trauma	3	20.0%
Tumor	2	13.3%

Table V: Functional Joint Movement of the study population (N=15)

Joint Movement	Number	Percentage
Normal	12	80%
Restricted	3	20%

Table VI: Donor site closure of the study population (N=15)

Donor Site Closure	Number	Percentage
STSG	9	60%
Primary Closure	6	40%

Table VII: Outcome of the study population (N=15)

Outcome	Number	Percentage
Survival	13	86.67%
partial flap loss	2	13.33%

Discussion:

Among the respondents, the average age of the patients was 35.8 years with a majority of the in-age group 44-66 years (40%). Ashfaq did a similar study and observed a mean age of 23 years (Ashfaq, 2014) .Prantl et al. used reverse lateral arm flap in age group of 40-70 years(Prantl et al., 2008)9. Islam et al. used this flap in 9 patients ranged from 23-46 years, average 31.8 yreas10(Islam et al., 2017). 60% of the patients were male. Prantl et al. also observed male predominance in similar ratio (Prantl et al., 2008). Babu et al. also observed 85% of the patients were male, 15% were female11(Babu et al., 2017).

Aetiology of soft tissue defect in this study were electric burn and burn contracture release in 33.34% each. Prantl et al. used this flap for coverage of defect from excision of chronic bursitis, septic bursitis, chronic osteomyelitis, excision of histiocytoma and release of post burn scar contracture (Prantl et al., 2008). Huang et al. used this flap in patient with post oncological resection defect12(Huang et al., 2016). Aetiology of Devale et al. studies were post traumatic soft tissue defect around elbow.66.66% of them had their soft tissue defect on cubital fossa and 15% had on posterior surface. Nakao et al. showed 12 patients with cubital fossa defect undergo this flap reconstruction.

Wound length ranged from 8 to 14 cm in length with a mean length of 10.13 cm and from 4.5 to

11 cm in width with mean value of 5.8 cm13.The dimension of the flaps ranged from 9 to 15 cm in length with a mean length of 11.13 cm and from 5 to 12 cm in width with mean value of 6.8 cm. Prantl et al. used this flap with wound size 4 cm to 10 cm , flap dimension ranged from 15 cm to 8 cm (Prantl et al., 2008). Tripathy et al. used this flap with a maximum dimension of 18×8 cm and minimum 10×6 cm (Tripathy et al., 2010). Post-operative complications including distal flap necrosis in 2 cases. Di Summa et al. showed 1 reverse lateral arm flap developed distal flap necrosis requiring secondary flap procedure (di Summa et al., 2020). In this study donor site defect is closed primarily if it is not wider than 6 cm. Tripathy et al. (2010) can close donor site if flap was up to 6-7cm, they consider grafting in donor area as a major disadvantage.

Conclusion:

As a single-stage procedure with a reliable and constant vascular anatomy and the pliable nature of the tissue, the Reverse Flow Lateral Arm Flap has become a very useful and popular armamentarium to the Reconstructive and Hand surgeons to cover the wound around the elbow It is especially useful for the burn patients to help prevent contracture formation and also relieve of established burn contracture. Possibility of early mobilization helps regain full range of motion.

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Case Study

Use of Thick Split Thickness Sheet Skin Graft and its Outcome: A Case of Giant Congenital Melanocytic Nevus on the Face

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Abstract:

Introduction: Cutaneous melanocytic nevi cause cosmetic defects and represent a risk of malignant transformation. Facial Giant Congenital Melanocytic Nevus (GCMN) represents a major cosmetic deformity for the patient and is a challenge for plastic surgeons to achieve the best cosmetic results. Here in, a case of single-stage surgical reconstruction was presented using a partial thickness sheet skin graft for a facial GCMN.

Methods: A 14-year young girl presented with left-sided hemifacial GCMN with the nose, left ala, lower eyelid, and partial upper eyelid-eyebrow involvement. A single-stage complete excision of the nevus was performed. A thick split-thickness skin was then harvested from the medial site of the thigh for the reconstruction of the defect. Aesthetic subunit of the face and nose keeping in mind the graft applied in this manner. The graft was secured with a bolster tie over the dressing and for the eyelid, the applied quilting technique was additionally for the aim of the best outcome with no skin loss.

Results: Histopathology of the excised specimen confirmed the diagnosis of GCMN with no evidence of melanoma. The donor area healed with a favorable scar. The postoperative result was satisfactory. In long-term follow-up, the patient was able to close her eyes smoothly, ala seems better. The patient and her parents are very satisfied with the cosmetic and functional results.

Conclusion: Thick split-thickness sheet skin grafts is an effective method of repairing the defects resulting from the removal of large and giant nevus of the face, where there is limited availability of normal adjacent skin for tissue expansion.

Keywords: Giant congenital melanocytic nevus (GCMN), Split thickness Sheet skin graft, Malignancy

Introduction:

Giant congenital melanocytic nevus (GCMN) is commonly defined as a melanocytic lesion present at birth involving more than 2% body surface area in infants and toddlers, that reaches a diameter of >20cm in adulthood. [1-3]

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Two points should be noted for the treatment of GCMN. First, these lesions are associated with a risk of malignant melanoma, with a reported incidence of melanoma in patients with GCMN of 0.7% -8.2%.[1,4] A larger nevus has an increased risk of malignant transformation. Second, the cosmetic appearance of black hairy lesions can cause psychological effects. Based on these considerations, various methods including surgical excision, curettage, and dermabrasion have been reported.[1] Among these, early prophylactic surgical excision is recommended to reduce the risk of malignant transformation of skin lesions.[5] As nevus cells are histologically present in the entire dermal layer, complete

removal of GCMN results in a full-thickness skin defect, which is usually difficult to reconstruct in the child. A lesion on the face represents a major cosmetic deformity for the child and is a challenge for plastic surgeons to achieve the best cosmetic results. In total, 70% of melanomas are diagnosed by the age of 10 years. [6,7]. The relative risk of developing melanoma within a GCMN varies among types from 5% to 10% over one's lifetime. [8.] Hence early prophylactic excision and reconstruction are advisable. [9,10] The goal of treatment is complete excision with satisfactory cosmetic reconstruction. Therefore, during treatment decisions, factors such as psychological effects and the risk of surgery and malignant transformation should be considered. [11] We report here a case of a girl who underwent single-stage lesion resection and aesthetic subunit reconstruction with a thick split-thickness sheet skin graft, with acceptable functional and aesthetic results.

CASE REPORT

In January 2019, a 14 years young girl presented with an extensive, large, black, non-hairy skin patch over the left cheek, lower eyelid, partial part of upper eyelid-eyebrow, and nose since birth. This nevus had been increasing in size at the same rate as the facial growth. There was no family history of similar lesions or skin cancer. The patient had no neurological symptoms and was not taking any medications or ever taking any type of treatment for that problem. Examination revealed a large pigmented patch measuring approximately 14 cm in its greatest diameter on the left periorbital area and extended to cover nearly half of the face (Fig- 1). There was no color change or increase in size. No other specific complaints like pain, itching or discharge. No other satellite lesions were present over the body. We performed a single-stage complete excision of the lesion under general anesthesia. The surgical risks and benefits, and the potential for malignancy were discussed with the patient and her family. The

Figure 1. The pre-operative view of the giant congenital melanocytic nevus. Extensive black lesion on the left side of the face. Note the involvement of the lower eyelid and ala of the nose of the affected side.

thick split-thickness skin graft was harvested from the medial side of the thigh. Subsequently, the resulting defect was covered with the thick split-thickness sheet skin graft by securing the edge of the defect with a 5/0 non-absorbable proline suture (Fig-2).

A separate sheet of skin was applied to different anatomic areas following the subunit principle of reconstruction where feasible. A few mini pores were made in the skin sheet for squeezing any collection beneath the graft. In the process, meticulous hemostasis was acquired by selective electrocoagulation in the excised area. The operative site was dressed in wet sofra tulle with 2% mupirocin ointment and then 10% povidone-iodine-soaked wet cotton. Finally, the grafts were secured with bolster tie-over dressing to ensure immobilization. The patient received prophylactic antibiotics (Inj. Moxifloxacin) post-operatively. The dressing was changed after 5 days, which

Figure 2. Per operative view of the facial lesion after excision, followed by the application of thick split-thickness sheet skin graft. Note that the tiny pore rather meshes to the skin and applied quilting suture at lower eyelid area.

showed a tiny graft loss. Preoperative and post-operative digital photographs were taken to evaluate long-term outcomes through follow-up. The postoperative result was satisfactory with good color, color match, and thickness to cover the giant defect created after excision. Coconut butter lotion and emollient were advised to apply to the graft area postoperatively, for a long. Long-term follow-up visits revealed that the patient and her family were very satisfied with the cosmetic and functional results. The final follow-up photo was taken after 2 years of operation (Fig-3).

DISCUSSION

The choice of method of plastic surgery is specific for each patient and depends on the size and location of the defect. If the treatment strategy is improperly selected, severe scarring may form, resulting in ectropion, lip eversion, nasal atresia, and other deformities. A recent study demonstrated that early excision of the giant lesions reduces the risk of malignant melanoma and the associated psychological distress in the child and parents [3,12]. Several therapeutic procedures have been considered. Non-surgical options include dermabrasion, laser ablation, curettage, and chemical peeling. Since it is impossible to eliminate the risk of malignant transformation,

Figure 3. The result after a follow-up period of 2 years. The grafted skin has taken without any loss and contracture; color matching is acceptable with no sign of ectropion

GCMN removal is a reconstructive and aesthetic procedure rather than prophylactic surgery [13-15]. Recent advances have led to a multitude of surgical approaches for the treatment of large and GCMN including tissue expansion, serial excision, and either full thickness or a split-thickness skin graft. However, none of the currently available surgical methods is universally accepted. Tissue expansion is a useful method for providing additional tissue to resurface the giant defect created after the removal of nevus and acquires functional and aesthetic outcomes. However, the complications and limitations of tissue expansion are commonly described and are often reported to be greater in children [16,17]. The major complication of the expansion includes infection, expander exposure, and implant failure [18]. Moreover, the tissue expansion applied in

patients with large GCMN requires multiple stages. Serial excision is a preferred treatment method for congenital melanocytic nevus that can be excised in not more than two procedures [19]. But it is not recommended for large lesions involving the face, ear, and neck as it avoids the distortion of involved or adjacent structures and function loss. In the above anatomic site, skin grafting is recommended. Full-thickness skin grafts versus split-thickness skin grafts are preferred for the reconstruction of the face, ear, neck, and hand. The full-thickness skin graft was applied to the defect after the excision of the nevus and the grafted skin had excellent contour, color match, texture, and thickness [20,21]. But unfortunately, this huge amount of full-thickness skin harvesting is very difficult and challenging; the donor site is a great concern. In this case, a thick split-thickness skin graft was used, keeping it in sheet form without any mesh, and made some pores only to aim for a collection-free recipient field. The graft was then applied to the facial skin defect site, with full attention to the anatomical features of the face. Though the aesthetic outcome of a split-thickness skin graft is not very satisfactory for facial reconstruction, a thick sheet graft may be applicable and recommended for the large defect on the face. In long-term follow-up, a satisfactory functional and aesthetic outcome was found in this case study.

CONCLUSION

Thick split thickness sheet grafting is a safe and effective method to repair the huge defects of the excised facial GCMN and get a satisfactory cosmetic outcome with maintaining proper function and reducing the risk of degeneration. Slight facial makeup is sufficient for camouflaging the defect and thus increasing the confidence level of the sufferer.

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Case Study

Otoplasty: Correction of Prominent Ears Without Scar

Mohammad Abdul Mabin [1]

Abstract:

One of the most popular techniques for the management of prominent ears is the Mustarde technique. Although many modifications had been published all these started with a retro-auricular incision. Correction of prominent ears by Polypropylene thread is now gaining popularity as it is less invasive with minimum complication rate and can also be done as day-case surgery. In this article, we have discussed a case of the prominent ear of a young adult which was done by using the threading technique to correct the deformity. The result was good as there is a minimum scar with an aesthetically pleasing outcome.

Keywords: Prominent Ears, Thread left

Introduction:

Reconstruction of soft tissue defects in and around the elbow is of great concern for Plastic surgeons since it is a difficult region to reconstruct from a functional point of view. The elbow is also particularly prone to trauma due to its position and high mobility. A multitude of reasons can lead to elbow soft tissue defects including trauma, contracture release, tumor excision, burn, infection, and congenital anomalies[1-3].

Case Report

An 18-year-old male patient presented with a bilateral prominent ear, (Fig 1). The procedure was done under general anesthesia. A thread - Polypropylene, USP 4/0, EP 1.5, 800mm, diamond cut Trocar, double pointed, 3/4 curved 50mm DRT 50,120 was used to do the procedure.

Fig: 1: preop Left ear with marking

This unique Otoplasty Needle and Thread is easy to maneuver in any desired direction, turning and twisting on both sharp ends, in a single point of entry and exit. The inventor is Dr. Marlen Sulamanidze from Georgia (Photograph Ref. D).

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The assessment and marking are very important (Fig-2).

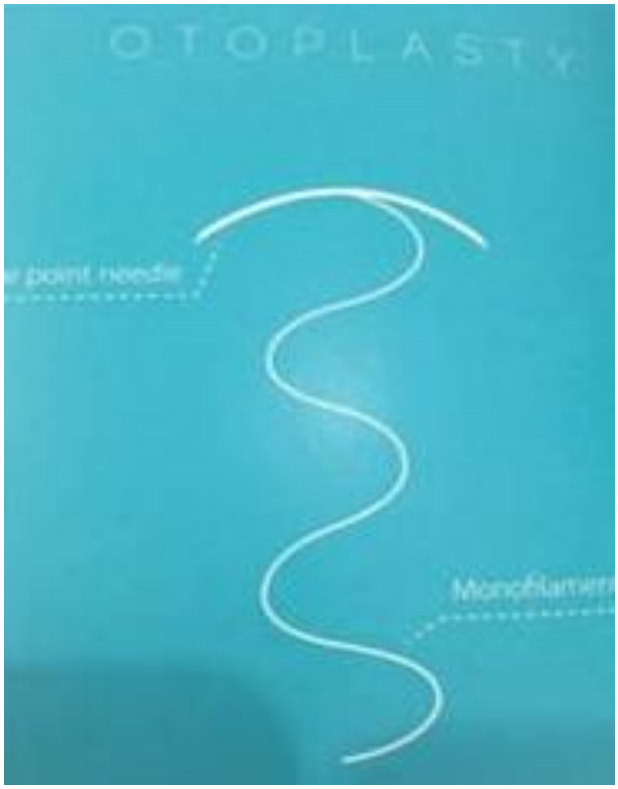

Fig: 2: Otoplasty thread & needle

The needle is inserted in the middle of the mastoid area opposite the external ear. From this point, the needle is advanced subcutaneously to the upper part and never brought out completely at any point to the surface of the skin. When the second tip remains under the skin, the needle is turned and the second tip runs ahead to continue passing the thread farther in the line of marking. From the mastoid side, the needle is passed underneath the sulcus to the upper and posterior aspect of the helix of the external ear. At this point, the needle pierces the cartilage of the helix and runs downwards along the anterior surface of the cartilage, between the skin and the cartilage, to a point where it again pierces the cartilage back again. Then the needle passes through the sulcus underneath the skin to the lower mastoid area and travels up to the middle of the mastoid area to unite with the other end of the thread. Now the needle is completely brought out to the surface and the two ends are pulled to bring the scapha and helix close to the mastoid area as desired and so tied underneath the skin and buried. The procedure is completed in 30 minutes time on each side.

Fig: 3: before and after "Thread otoplasty"

Result:

The result was quite acceptable after 3 months postoperative follow-up period. There was no sign of infection or skin necrosis. Although there was edema at the operative site in the early postoperative days it eventually subsided in 3-5 days.

Discussion

External ears, a beautiful masterpiece of creation, are an aesthetically and distinctly visible part of human face. Both ears must seem natural, soft, harmonic, and free of any surgical scars following any surgical and non-surgical procedures.After the treatment is finished, the helical rim should be clearly seen when viewed from the side, and when viewed from the back, it should seem straight and not have a "C" or telephone malformation.

There is no guideline about the timing unless it is extremely prominent and/or associated with Macrotia. I think the best time to go for the procedure will be when the patient starts complaining about the deformity

Other surgical procedures available for the correction of prominent ears require a long

incision to expose the cartilage. The surgery involves 1. suturing the anti-helical fold (Mustarde, Photograph Ref-A), and 2. using the Stenstrom technique of anterior cartilage abrasion (Gibson, Photograph Ref-B), 3. To create the required fold by cutting through the cartilage's whole thickness following the anti-curve. helix's (Luckett, Photograph Ref- 3).

Conclusion:

This technique is also applicable to correct another deformity of the ear unless excess cartilage or excess skin resection is needed. It can be done as a day case procedure. The chance of complication is also lesser than with the open technique as it is a minimally invasive technique. Aesthetically superior to open technique as there is minimum or no scar.

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