Clinical Paper

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Bilateral Dimple Creation – Case Study

Abstract:

Background: Patients are more focusing on facial esthetic . Dimple creation is very popular in female patients ,various techniques are present with their own advantages and disadvantages .

Materials and Methods : Dimples were created in 10 female subjects . 6 patients bilaterally and 4 patients unilaterally .

Results: Post operative selling and delayed healing seen in 4 subjects where large amount of tissue is scraped off for larger dimple creation .in 2 cases where we used 3-0 vicrylswelling and pain was present .2 subjects were dissatisfied with results .

Conclusion: Minimum amount of tissue to be scraped off and 5-0 vicryl to be used and unilateral dimple cases were more satisfied with results .

Key-words: .....

Introduction:

Dimples are usually seen as a charming characteristic of facial beauty . They may take place in both genders , may state unilaterally or bilaterally and are generally inherited as a dominant trait . Cheek dimples are caused by the presence of dermocutaneous insertion of the fibres of the inferior bundle of the double or bifid zygomaticus major muscle . Either or both of the cheeks can present with one or more dimples . Dimples occurring on both cheeks are more common than only one cheek . several techniques had been described for creation of cheek dimples depending upon 2 main principles either to excise the tissue or to use suturing technique for creation of dimples , in this article we excised tissue to create cheek dimples .

Materials and Methods:

This study included 10 female subjects who underwent creation of 16 dimples (6 patients bilaterally and 4 patients unilaterally). Informed consent was obtained from all individual participants included in study.

Subjects were informed about swelling and edema in first week ,cold fomentation to be done for initially 2 days then warm rinses.

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Positioning of the dimple:

Generally position of dimple is marked by cosmetic viewpoint at the intersection of perpendicular line dropped from external canthus and horizontal line from the angle of mouth as reported by Boo-Chai. We found the position is too low , we consider the position of dimple at the point of intersection of perpendicular line dropped from external canthus and horizontal line from the highest point of cupid's bow.

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Surgery:

It is performed under local anaesthesia. Around 4-5 mL of 0.5 % lignocaine adrenaline solution is injected from the dermal side down to the mucosal side. A small incision is made with a No. 15 blade on the mucosal side. The tissue present between the mucosa and the skin is scraped off of all the mucomuscular attachments. Tissue is scraped till we feel the tip of the instrument on the outer skin. For a wider dimple, wider area is scraped and for a smaller dimple smaller area is scraped. After the scraping we palpate bimanually to feel the dent, if the desired depression is inadequate we further scrape it. Next we have to create and maintain adhesion .A No. 5-0 vicryl (absorbable) on a curved needle is taken. It is inserted from the mucosa brought out through skin and reinserted from the skin and brought out through the mucosa and surgeon's knot is given. In 2 cases we used 3-0 vicryl suture which compromised the post operative healing due to its thickness. In rest of the cases we used 5-0 vicryl.

Postoperative care :

The patient is prescribed antibiotics and analgesics for 5 days. Cold fomentation to be done for 48 hours . Initially, there is a dimple on static face also .Later, dimple appears only during smiling.

Results:

Total 16 dimples were created in 10 subjects. Their age ranged from 20-40 years. 6 subjects wanted bilateral while 4 wanted unilateral dimple(3 cases on right and 1 on left side). Delayed healing was seen in 4 subjects who wanted large dimple as large amount of tissue was scraped off in them. Postoperative swelling was also seen in these subjects. In 2 cases where we used 3-0 vicrylsuture , swelling and pain was present. In 2 bilateral cases asymmetry was observed in the size of dimple .2 subjects were dissatisfied with the appearance, 8 subjects have been followed for 6 months.

Discussion:

Beauty of the face is intimately related to expressions . The beauty of the face is enhanced by the presence of dimples[5] .

The presence of dimples is inherited as an autosomal dominant fashion . the cheek dimples are expressed on chromosome 16 and ultimately parents having the dimples have children with dimples. There is increased demand for creation of facial dimples , and many mostly females seek cosmetic surgeons to achieve facial dimples[5]

Since Boo-Chai was the first person to create the facial dimples in 1962 . after that several authors tried various techniques for connecting the active facial muscles to the dermis[6] .

In 1971 ,Argamaso excised the cylindrical segment of tissue consisting of buccal mucosa , muscle and subcutaneous fat to form permanent dimple[1]. In 2007 Bao and his colleagues described an elegant technique where they used a syringe needle to guide a monofilament nylon suture through the dermis and the active facial muscles that is the buccinator , a sling was formed between the skin and the buccinator muscle , knot was tied and dimple was created[7] .

In 2012 Keyhan and his colleagues said that for better suturing technique , the enhanced exposure is useful particularly in subjects with chubby cheeks ,where the depth of the field and fat tissue can make precise suturing difficult . The blind core procedure using a trephine bur was described .This approach provides a predictable outcome with the persistence of dimple more than one year[8].

In 2010 Thomas et al claimed that the anomalous anatomy responsible for dimples is surgically mimicked without requiring any soft tissue removal but by allowing adequate exposure. Contrary to what was proposed ,an incision in mucosa was done. Also, dissection of muscle with cutting part of buccinator muscle was made[9].

Indeed, open technique and blind core method have the same permanent results (upto 1 year). Suturing alone without excision of tissue has no lasting results and the dimple will fade with time[5].

Saraf et al used a punch biopsy instrument and an intraoral approach to create a dimple . A circular core composed of mucosa , submucosal fat and cheek muscles is removed ,sparing the skin . This creates a shallow cylindrical shaped defect under the skin . A suture is then taken through the dermal layer of the skin and finally through thecheek muscle on one side of the defect , then through the cheek muscle on the other side of the defect .The knot is then tied, resulting in dimpling of the skin[10] .

The open technique in which excision of tissue to be done have got a risk of bleeding during or after dimple creation surgery . There is also an increased risk of hematoma formation and infection , Though extremely uncommon ,there is a potential for injury to the buccal branch of facial nerve[5] .
We feel that the techniques using syringe needle as a guide to create a sling by Shiwei Bao et al.[7] is cumbersome .They also recommended that patient can return to work or other

activities 2 days after operation , which we feel is a very long time for minor procedure like dimple creation[11] .

The technique which we have used is very simple and easily reproducible even in the less experienced hands . Size of the dimple depends upon the amount of tissue resected from the site .We experienced that patients in which we resected minimal amount of tissue have less post operative complications like swelling and oedema .One can easily feel and visualize the indentation immediately after the procedure . We experienced that when we are using 3-0 vicryl there are more post operative complications like swelling and oedema due to the thickness of the material as compared to the patients in which we used 5-0 vicryl. Unilateral dimples gave better results than bilateral due to less comparison between the 2 dimples and their sizes as the amount of tissue resected from both the side may (or may not) differ.

Conclusion:

Dimple creation is one of the most common facial aesthetic surgery . In this study we observed that subjects in which minimum amount of tissue scraped off is more satisfied with results when compared to patients in which large amount of tissue scraped off. Patients with unilateral dimple creation are more satisfied than bilateral dimple creation due to position and change in amount of tissue scraped off for dimple creation . Patients in which 3-0 vicryl is used to suture have more post operative complications and results were good 5-0 vicryl in terms of less post operative pain and swellingand good post operativeresults .

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