

Case Report

“Dimple”-matically correct – Revisiting the technique for the creation of a chin dimple

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ABSTRACT

The boom in cosmetic surgery has ushered in the age of the “designer dimple.” In the current scenario where an increasing number of Indians are seeking cosmetic surgery, we present our technique for creation of chin dimples. We used this simple and straightforward technique in one patient. The principal steps of the technique include thinning the skin flap, creating a concave indentation in the mandibular symphysis, and obtaining an adhesion between the thinned skin flap and the indented bone. An aesthetically pleasing chin dimple was achieved. We propose that the bony contouring improves the chances of creating a permanent chin cleft or dimple. Our technique for creation of chin dimples aims to give an aesthetic and permanent result by altering the underlying contour of mandibular symphysis and achieving accurate skin coaptation with non-absorbable sutures.

KEY WORDS

Chin cleft; chin dimple; mandibular indentation

INTRODUCTION

Creating a concavity in the chin provides character and uniqueness to the face. It has been reported that the chin dimple results from incomplete fusion of the two halves of the jaw during foetal development, forming a notch in an otherwise well-united mandibular symphysis. It can also be caused by a dehiscence or failure of the paired mentalis muscle over the chin to come together during development.

Keeping this in mind, we reviewed the existing methods

of chin dimple creation and modified them to create our own technique. The bony contouring in the midline of the mandibular symphysis and skin fixation to this notch which we follow in our technique greatly increases the likelihood of permanence of the dimple. Our patient satisfaction was high with excellent aesthetic outcome and minimal morbidity.

CASE REPORT

A 45-year-old male patient presented to us with a request for chin dimple.

The desired position of the dimple was marked preoperatively on the chin in the midline at the lower border of the mandible. Active patient participation is solicited before finalizing the length and location of the dimple [Figure 1].

Though the surgery can be performed under local

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anaesthesia with intravenous sedation, we used general anaesthesia as a concomitant revision rhinoplasty was also planned.

A lower gingivobuccal sulcus incision was taken and the periosteum was elevated off the mandible in the midline. An indentation was fashioned in the mandibular symphysis using a round burr. Two drill holes were made on either side of this indentation [Figure 2]. A small (5 mm) cuff of subcutaneous tissue and underlying muscle was removed at the proposed site of the dimple. Double sutures of 3-0 polypropylene were passed through the drill holes on either side of the bone indentation [Figures 3, 4] and through the thinned overlying skin and muscle to develop the dimple [Figures 5, 6]. The incision was closed with 3-0 polyglactin sutures in two layers. Micropore tape was

applied to facilitate re-draping of skin.

There were no postoperative complications. Photographs of the patient at 6 weeks showed a pleasing result [Figures 7, 8].

DISCUSSION

With increasing numbers of women and even men seeking cosmetic surgery, beauty is no longer in the eyes of the beholder, but in the mind of its owner. Dimples are indentations of skin that add complexity to an otherwise mostly smooth surface.

The intraoral approach is the preferred route of access by most surgeons (Guerrero-Santos *et al.*^[1] Aragamaso,^[2]



Figure 1: Preoperative photograph of the patient showing site of proposed dimple



Figure 2: Intraoperative view of indentation in the mandibular symphysis

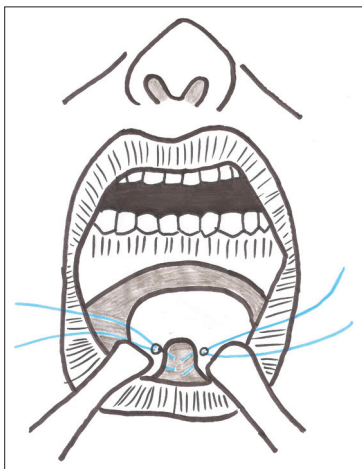


Figure 3: Diagram illustrating Prolene sutures passed through the drill holes on each side of the bony cleft

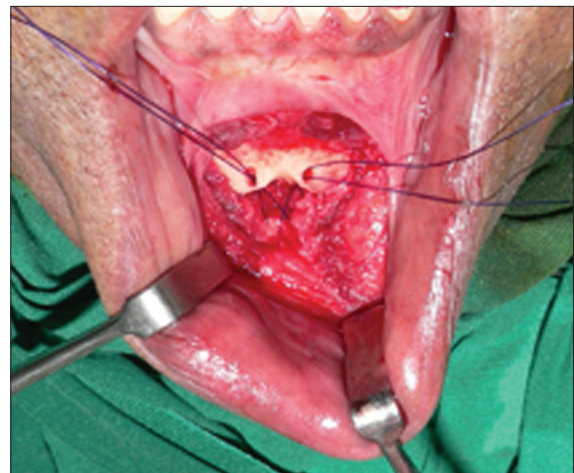


Figure 4: Intraoperative view of Prolene sutures passed through skin and subcutaneous tissue at the site of the dimple

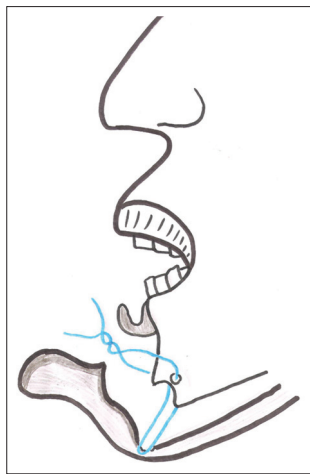


Figure 5: Sagittal view to demonstrate suture through skin and the cleft in the bone



Figure 6: Diagram to demonstrate skin coaptation to the cleft in the bone after tying of sutures



Figure 7: Postoperative view of the patient at 6 weeks



Figure 8: Close-up of the chin dimple

Converse^[3]). However, an external approach with excision of a disc of skin and/or subcutaneous tissue has also been described.^[4]

Methods vary from simply taking a suture through the skin and subcutaneous tissue as in the Serdev technique, to excising only subcutaneous tissue,^[4] to removing a segment of the mandible.^[1,3]

Suture only techniques are popular for their simplicity to perform, minimal downtime for the patient (so-called lunch-hour surgeries), and are performed even by dermatologists, cosmetologists, etc. Various suture materials have been used, ranging from absorbable ones such as polyglactin and polydioxone to non-absorbable ones such as polypropylene. An Internet search revealed a European surgeon, Dr. Nikolay Serdev, who describes the use of resorbable polycapromide threads (Serdev lift), which are barbless, anti-microbial and semi-elastic.

Though such techniques may create permanent dimples, morphological changes can occur with changes in the body weight and the ageing process. There is no telling how the dimples will look when the face begins to droop as the skin ages and loses elasticity. These “designer dimples” could potentially become “designer disasters” over a period of time.

Cinelli^[4] has described a technique using an external skin incision as long as the desired cleft length and the removal of appropriate amounts of subcutaneous tissues depending on the desire for a deep or shallow cleft. The greatest excision was in the centre while lesser excisions were made from the adjacent tissues. In Cinelli's opinion, removal of bone causes unnecessary bleeding and an irregular scar as a result of uncontrolled skin re-draping.^[4] We believe that this last problem can be overcome by guiding and maintaining the skin coaptation to bone with the help of non-absorbable sutures.

Guerrero-Santos used an intraoral incision for subperiosteal exposure of the mandibular symphysis. Bone was resected; the overlying skin was thinned in the median raphe and fixed to the mandibular indentation with a wire through a single hole in the symphysis.^[1]

Our technique follows the three fundamental principles of Guerrero-Santos:^[1]

1. thinning the skin flap in the midline of the chin,
2. forming a concave indentation in the centre of the mandibular symphysis and
3. obtaining an adhesion between the dermal layer of overlying skin and indented bone.

In our technique, the difference is that we used polypropylene sutures instead of wire and passed them through two separate drill holes on either side of the bony indentation.

Ivo Pitanguy^[5] also described thinning the skin at the site of the future dimple by detaching a flap of the median raphe while performing an augmentation mentoplasty. This fixes the implant securely and also creates a midline dimple in the chin. Pre-contoured chin implants with a groove or notch in the midline, though not available at present, may give a similar result.

Sher presented a technique of soft tissue contouring in conjunction with advancement genioplasty. He postulates that the actual chin cleft is a soft tissue phenomenon, rather than a bone cleavage point and that minor re-contouring of the bone be done only when there is a prominent bony apex to the symphysis.^[6]

Our patient was greatly satisfied with the result which is the experience reported by most authors including Aragamaso (1979).^[2] Potential complications include unfavourable shape or position of the dimple, haematoma, swelling and infection. Abscess formation, though rare with the use of antibiotics and oral hygiene, has been reported (Saraf and Pillutia).^[7]

These days, there is a rising demand in India for cosmetic surgery and “designer dimples” are much in vogue. Our technique is a simple and effective way to create chin clefts or dimples which are permanent. Though this procedure need not be offered to every patient, familiarity with the technique is desirable should there be a request to perform such a surgery.

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