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SHORT COMMUNICATION

An alternative approach to primary rhinoplasty using Walsham forceps

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Abstract

Background: The successful execution of lateral osteotomies in rhinoplasty is an important step that can influence the functional and aesthetic outcome of the procedure.

Objective: This paper describes an alternative method for achieving mobilisation of the nasal bones by careful application of Walsham forceps during primary rhinoplasty.

Key words: Nose; Nasal Surgical Procedures; Rhinoplasty; Osteotomy; Nasal Bone

Introduction

Successful completion of osteotomies is a crucial step in rhinoplasty.[1] Full mobilisation of the nasal bones is required for successful repositioning. This is classically achieved by medial and lateral osteotomies using an osteotome.[2] This enables the surgeon to narrow the nose, to close an open roof deformity created by removal of a hump and to create symmetry of the nasal bony framework.[3]

The reported complications associated with lateral osteotomies include prolonged oedema, ecchymosis and bleeding, fracture comminution, and functional obstruction.[3–6] A percutaneous approach reduces soft tissue oedema but may leave a visible scar,[4,7] while an internal approach may result in excessive bleeding and mucosal disruption.

We describe an alternative method of achieving desirable form and function in primary rhinoplasty.

Surgical technique

After performing medial osteotomies, an accurate fracture line can be produced in most female patients, and in male patients with thin nasal bones, at the site where the nasal bones abut the nasal maxilla, through the careful application of Walsham forceps. This is achieved by using the Walsham forceps to in-fracture the nasal bones (Figures 1–3), as described below.

Firstly, having completed the medial osteotomies, one arm of the Walsham forceps is introduced to the nasal cavity, while the other, separated from the skin by a protective layer of gauze, is applied to the external lateral aspect of the nose. Secondly, the forceps are carefully placed in as lateral position as possible, parallel and adjacent to the pyriform aperture. Thirdly, controlled, rotational pressure is applied until in-fracture of the lateral nasal bone is achieved. This is then repeated on the contralateral side. Finally, repositioning of the nasal bones is performed via tactile manipulation in the usual manner.

Discussion

Although objective data are lacking and formal validation of this technique has yet to be carried out, we have found this method to be successful in over 50 procedures carried out over a 2-year period. Furthermore, this technique offers several benefits when compared with lateral osteotomies achieved using an osteotome. It has been our experience that rhinoplasty performed in this way requires less operating time, produces less soft tissue trauma and bleeding, and causes less post-operative ecchymosis and oedema. It also leaves no visible external scar, a complication that has



FIG. 1
Pre-procedure profile view of patient.

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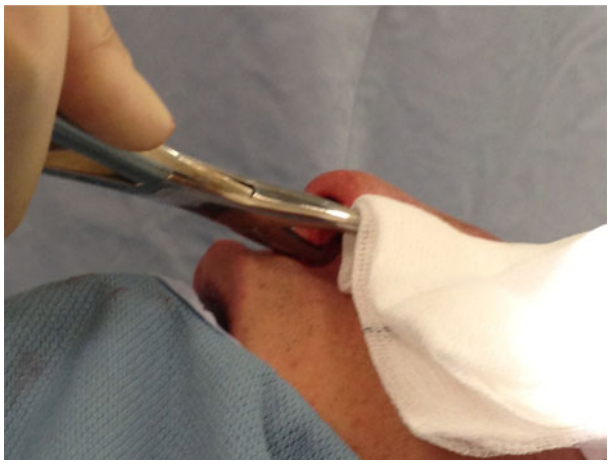


FIG. 2
Positioning of Walsham forceps for in-fracture of nasal bones.



FIG. 3
Post-procedure profile view of patient following rhinoplasty with in-fracture of the nasal bones achieved using Walsham forceps.

been reported as occurring in 6 per cent of lateral osteotomies achieved via an external incision.[7]

The use of Walsham forceps when reducing fractured nasal bones has been associated with nasal mucosal tears. However, we have found that through careful placement of the forceps, good apposition of the jaws and the application of steady, controlled force, the mucosal and soft tissue traumas have been minimal. Although a degree of contusion may occur, there is less tearing of the nasal mucosa, ultimately resulting in less bleeding.

This approach also gives the operator full control over the force applied to the nasal bones, and therefore the direction and the level of the osteotomy fracture line (negating reliance on the variable force applied to the osteotome by an assistant using a mallet). The structure of the periosteum is preserved, reducing the risk of excessive mobilisation and inward collapse of the nasal bones.

Patient follow up has demonstrated excellent results in terms of aesthetic and functional outcome, with no revision osteotomies required to date. Post-operative review in the clinic has demonstrated a smooth contour of the maxillary process, with no step-like deformity and no external evidence of in-fracture. Rhinoscopic examination at follow up has shown high levels of mucosal preservation, with minimal evidence of damage to the intranasal mucosa.

Limitations associated with this approach include failure to achieve mobilisation in male patients with thicker nasal bones and in patients with a history of previous nasal fractures and/or surgery.

Conclusion

The classical approach of mobilising the nasal bones in rhinoplastic surgery is by lateral osteotomies achieved with an osteotome. We offer an alternative technique to this tried and tested method which we have found has several advantages over the classical approach in appropriately selected patients.

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