TIPS AND TECHNIQUES

Simple Technique to Correct the Nasal Bone Dislocation After Lateral Osteotomy

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Rhinoplasty is one of the most common procedures in cosmetic surgery, and a possible complication is the dislocation of the nasal bone. Therefore, we have established a simple technique to fixate the unstable bone fracture, which has given us excellent cosmetic results.

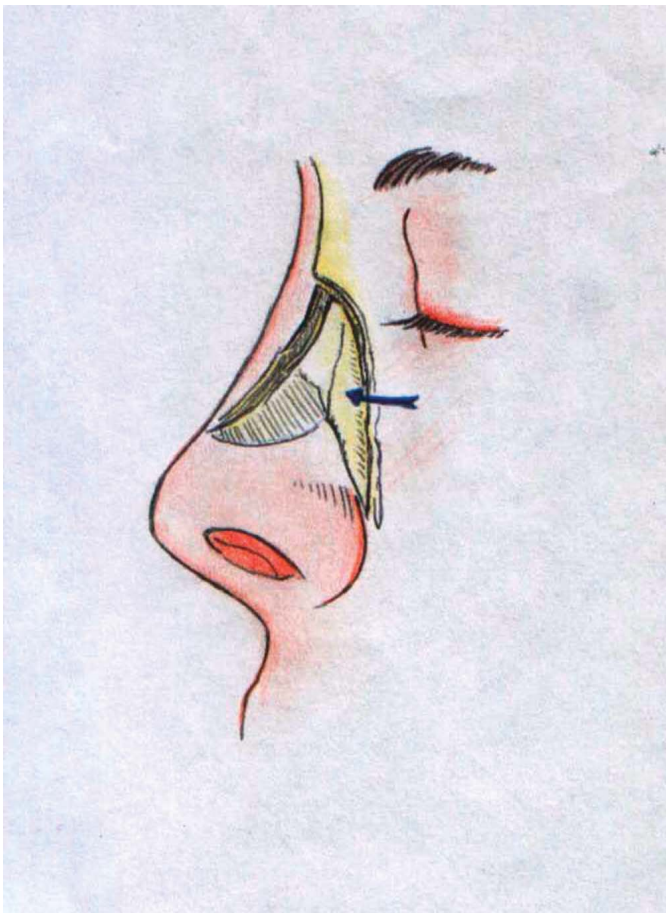

Figure 1. *Lateral osteotomy line.*

Sometimes during a rhinoplasty surgery, when the lateral osteotomy is finished, the result may be compromised by dislocation of the lateral fragment.

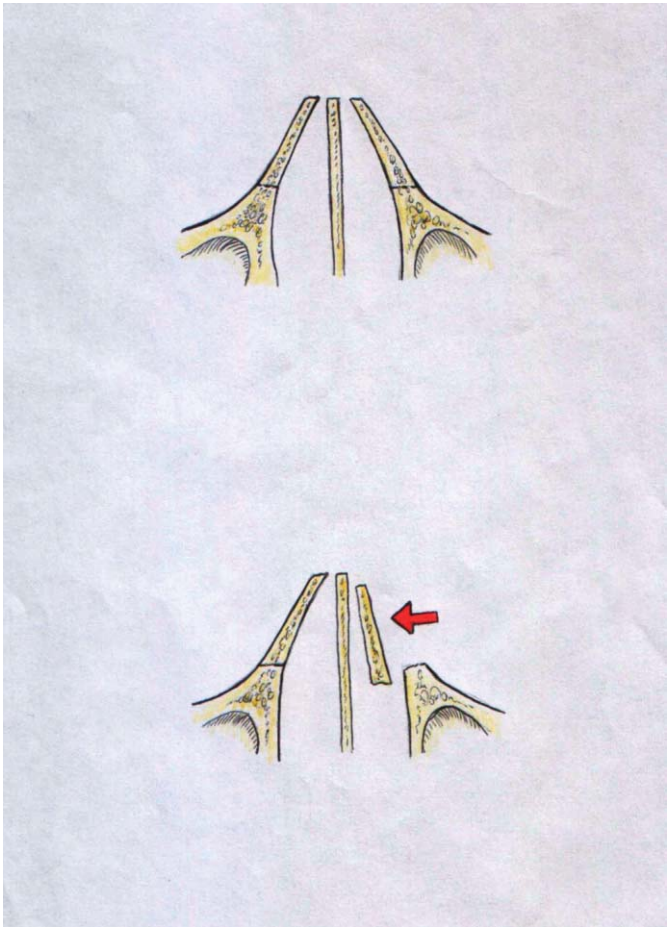

Figure 2. *The bone fragment is shown as it falls into the cavity.*

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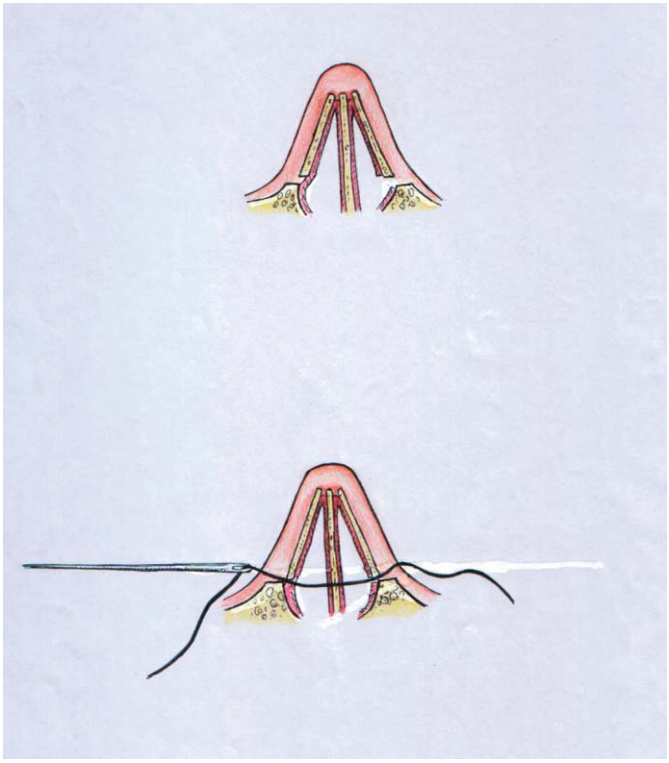

Figure 3. *The salvage maneuver with the thread passed via a Keith needle.*

This creates instability of the lateral wall of the nasal bone pyramid, as demonstrated in Figure 1. The loss of stability can cause the bone fragment to drop (Figure 2), which is difficult to correct and leads to irregularities of the nasal dorsum and marked asymmetry of the nasal pyramid.

To hold the fragment, one option is to apply internal gauze packing to keep the bone fragment in a better position. Such a maneuver does not always have the expected results due to the difficulty in maintaining a correct internal compression during the postoperative period. However another possibility is to use some kind of screw or fixation elements,[1] but this would make the procedure considerably longer and more expensive. We propose a solution to this problem that will serve to stabilize the bone fragment until sufficient scarring begins and can hold the bone fragment in place.

Idea

Based on previous ideas reported by Rees,[2] we suggest the placement of one or two temporary transfixion sutures, which allow the bone fragment to be placed in the correct position. The position is thus maintained during the healing process.

Figure 4. *Intraoperative view of the thread placed into the bilateral bone fracture.*

Surgical Technique

Once fracture instability is recognized, the stabilizing threads are inserted before the surgery is completed, while the patient is still anesthetized (Figure 3). A straight needle with 2-0 nylon thread is passed from the collapsed side to the undamaged side. With the point of the needle, the inferior edge of the bone fragment is located and passed through the osteotomy segment, using the needle as leverage to lift the bone fragment to the correct position. This maneuver can be helped by using an Aufricht nasal retractor inside the nasal fossa.

The nasal septum is perforated, the contralateral fracture line is identified, and the needle comes out of the skin through the contralateral fracture line (Figure 4).

The nylon thread is tightened and fixed with micropore tape on both cheeks, keeping it in this position between 7 and 10 days.

Figure 5. *Pre and postoperative pictures of a rhinoplasty patient that had an intraoperative fracture instability solved with the described maneuver.*

Outcomes

The senior authors have more than 25 years of experience in plastic surgery and have used this technique about a dozen times. The results of the application of this rescue maneuver have been very good and have not caused any complications to the nose surgery (Figure 5). We have used the same technique in some facial trauma cases that presented the same kind of problem.

References

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