

## **VERTICAL & HORIZONTAL THREAD EYEBROW LIFT**

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### **Introduction:**

Surgical eyebrow lift can result in widening of the scars, damage to the frontal branch of facial nerve, and damage to the supraorbital nerve. Damage to the supraorbital vessels can lead to hematoma formation. Hematomas can also form by not following the tumescent technique, or if hemostasis is not achieved properly, or cold compresses are not used in the post-operative period. Asymmetry of the eyebrows can also take place, especially in general anesthesia, when complete muscular relaxation takes place.

The author has developed percutaneous eyebrow lift technique, using a vertical lift / horizontal needle approach.<sup>1</sup> The simplified thread eyebrow lift using a vertical lift / horizontal needle approach, is a simple eyebrow lift technique, which has not even minor drawbacks of its predecessors.

### **Vertical & Horizontal Eyebrow Lift Techniques:**

Careful antisepsis is done with povidone iodine. Excess povidone iodine is cleaned with sterile swabs. 1% chilled anesthesia is used using ultra-fine insulin syringe. Markings are made on the eyebrow, and on the forehead, up to the level, where eyebrow needs to be lifted. Frontal branch of the facial nerve, supraorbital nerve, and respective vessels are also marked. Points A,B,C and D are entry / exit points of the needle. Points A & D, and B & C coincide. Points A, and B are deep periosteal, whereas points C, and D are dermal / sub-cutaneous. Similarly tracts E, and F coincide. Tract E is periosteal, whereas tract F is at the same level, but dermal / sub-cutaneous (Figs 1 & 2). Prolene 3/0 attached to a straight needle or KH (Khawaja-Hernandez needle) needle, is used for lifting the eyebrows (Fig 2). The surgeon lifts the eyebrow to the desired level on the forehead. The assistant holds the eyebrow steadily at that position. Now the surgeon enters at point A ( coincides with point D on the forehead ), at the extreme lateral end of the

eyebrow, deep periosteally, with straight needle having prolene 3/0. The needle is passed deep periosteally along the tract E, towards point B. Point B ( coincides with point C ), lies lateral to the supraorbital foramen, containing supraorbital nerve and vessels. The needle exits at point B. The needle is now passed from point B ( C ), superficially along the lower dermis towards point A ( D). The needle tract along F ( coincides with periosteal tract E ), is dermal, or superficial sub-cutaneous. The needle exits at point A ( D), on the lateral end of the eyebrow. The 2 ends of prolene thread are held in hand, 5-6 knots are applied, and ends are cut short. The knots get buried automatically. However, if difficulty is experienced in burying the knots, one end of a small curved artery forceps is used, along the needle hole, and it buries the knots. Same procedure is followed for the other eyebrow.

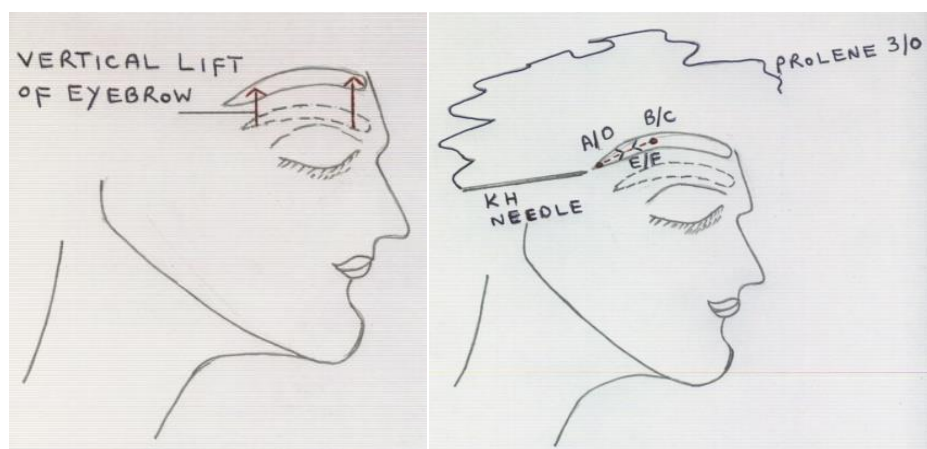


Fig 1 & 2: Vertical and Horizontal techniques for Eyebrow Lift.

### Discussion:

Percutaneous eyebrow lift using the vertical lift / horizontal needle approach with knots in the temporal bone periostium, or thick temporal fascia, can lead to lift of a portion of the eyebrow, along which suture is passed, without lifting rest of the eyebrow. This can lead to an inverted “V” shaped deformity, with patient dissatisfaction. Using the horizontal approach to the eyebrow lift, this drawback is avoided. Transverse wrinkles on forehead above the lifted eyebrow appear with both approaches, if more lift is required; more so with the vertical approach. It is best to keep the lift mild to moderate, in order to avoid this happening. However, in any case, these wrinkles are temporary, and disappear in days / weeks. However, these cause worry for the cosmetic patients, who don’t want to wait long for the results. Concomitant Botox injections, at the site of wrinkles, can lead to improvement of these wrinkles. The deep periosteal tracts, and knots, provide stability to the lift, which remains stable for years (Figs 3-6).<sup>2-5</sup> The superficial dermal / sub-cutaneous tract, should not be extremely superficial, otherwise, extrusion of prolene thread can take place. It is also extremely important while providing lift that absolute symmetry of both eyebrows is maintained. Prior markings of the desired lift, along with experience of the

surgeon, will usually avoid this complication. However, in any case, the procedure is very simple, and can be easily repeated or revised, in case of patient dissatisfaction.



Figs 3 & 4: Before and after Horizontal Eyebrow Lift.



Figs 5 & 6: Before and after Vertical Eyebrow Lift.

### **Conclusions:**

Horizontal & vertical thread eyebrow lifts are simple techniques for eyebrow lift, with improved longer lasting cosmetic results, and high patient satisfaction rate. There are minimal or no complications, and these can be easily repeated or revised.

**References:**

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