Journal of
Aesthetic Medicine

MDPI

Article

Endoscopic Forehead Lifting with a Novel Polymer Fixation Peg: A Case Series and Narrative Review

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Abstract

This study evaluates a novel high-density polyethylene (HDPE) browlift peg for brow fixation in endoscopic forehead lifting, assessing its safety, effectiveness, and aesthetic outcomes while contextualizing its use through a narrative review of existing techniques. Twenty-nine consecutive female patients underwent bilateral endoscopic brow lifts using a custom-shaped HDPE peg inserted into the frontal bone via a small paramedian incision. Outcomes included postoperative brow symmetry, defined as $\leq$2 mm asymmetry, and documentation of complications. The mean patient age was 62.1 years, with an average follow-up of 12.3 months. All patients achieved symmetric brow positioning within 2 mm. No cases of implant extrusion, wound dehiscence, or permanent nerve injury occurred. Minor complications included one case each of transient paresthesia, localized incision infection not involving the implant, and a palpable implant removed in-office under local anesthesia. A parallel narrative review highlighted common limitations in brow fixation strategies—namely, implant palpability, risk of relapse, cost, and invasiveness. These findings suggest that the HDPE peg is a safe, customizable, and cost-effective alternative for brow fixation, offering durable aesthetic results with minimal complications and potential value in aesthetic and oculoplastic surgery.

Keywords: endoscopic brow lift; brow fixation; polymer implant

Academic Editor: Riccardo Nucera

Received: 8 June 2025
Revised: 2 July 2025
Accepted: 16 July 2025
Published: 21 July 2025

Citation: Bair, H.; Cheng, T.S.; Ramesh, S. Endoscopic Forehead Lifting with a Novel Polymer Fixation Peg: A Case Series and Narrative Review. *J. Aesthetic Med.* **2025**, *1*, 3. https://doi.org/10.3390/jaestheticmed1010003

1. Introduction

Forehead lifting is a cornerstone of oculofacial plastic surgery, employed to improve upper blepharoplasty outcomes and enhance upper facial rejuvenation, often in conjunction with blepharoplasty for optimal results [1]. Historically, brow lifts were achieved through open techniques. Classic approaches include the coronal brow lift (an ear-to-ear scalp incision), pretrichial (trichophytic) brow lift at the hairline, and mid-forehead or direct brow lifts with incisions in forehead creases or just above the brow. These open techniques proved effective in elevating the brows and smoothing forehead rhytids, but at the cost of large incisions and significant morbidity. Patients frequently experienced long scars (sometimes visible), postoperative alopecia along incision lines, and sensory nerve deficits due to the extensive dissection [2]. As a result of these drawbacks, surgeons sought less invasive solutions.

A major paradigm shift occurred in the early 1990s with the introduction of the endoscopic forehead and brow lift. These techniques allowed for brow elevation through

several small scalp incisions using endoscopic visualization [2]. Endoscopic brow lifts quickly gained popularity for their lower morbidity and excellent cosmetic outcomes, especially for patients with mild to moderate brow ptosis. In an endoscopic lift, the surgeon elevates the brow and forehead tissues in a deep subperiosteal plane via small incisions, releasing the ligamentous attachments that cause brow descent. This extensive subperiosteal mobilization is important to achieve the desired brow height and contour. However, once elevated, the forehead flap must be secured in its new position until healing and reattachment occur. Fixation of the lifted brow is therefore a crucial step—it maintains symmetric brow height and prevents early relapse while the periosteum reattaches [3]. The temporoparietal fascia is secured to the deep temporalis fascia laterally, while the brow flap is secured to the calvarium itself.

Numerous techniques have been described to secure the calvarial fixation, which may be broadly categorized as either exogenous or endogenous, primarily based on whether external hardware is involved [4–6]. While these fixation methods have demonstrated efficacy, they come with inherent drawbacks. Exogenous implants are associated with infection risk, palpability of the anchors, adverse effects such as foreign body response, and a higher possibility of reoperation; bone tunnel fixation, while more durable and associated with greater patient satisfaction, requires larger incisions and is technically more difficult to perform [7].

Implants constructed of various materials, resorbable and non-resorbable, have been reported [8]. Currently available implants are costly, potentially palpable, and may be associated with a greater risk of inflammatory response [7,9]. These considerations underscore the importance of developing biocompatible and cost-effective alternatives that ensure patient comfort and desired outcomes.

To address these challenges, this study introduces a polymer browlift peg fabricated from porous high-density polyethylene (HDPE), a material extensively validated in craniofacial surgery for its biocompatibility and structural integrity [10,11]. By leveraging the benefits of HDPE, including its lightweight nature and ability to integrate with surrounding tissues, our novel browlift peg aims to enhance patient outcomes and broaden the accessibility of aesthetic surgical procedures. This study aims to describe the surgical technique involved in forehead lifting with this HDPE peg and evaluate its clinical outcomes. To contextualize this brow peg within the broader surgical landscape, we also conduct a narrative review of the literature on eyebrow lifting techniques, fixation strategies, and implant materials.

2. Materials and Methods

This retrospective chart review included data from consecutive patients who underwent endoscopic brow lift with the HDPE peg (Su-Por, Newnan, GA, USA) between October 2022 and October 2023. The procedures were all performed by the senior author (SR). Patients receiving botulinum toxin injections during the study period were excluded. All patients provided informed consent for the procedure, including the use of anonymized photographs for research purposes. The study complied with the Health Insurance Portability and Accountability Act and adhered to the tenets of the Declaration of Helsinki on ethical principles for medical research and qualified for an institutional review board waiver. Data extracted included age, postoperative symmetry, complications, and follow-up in months.

The surgical technique performed was as per routine endoscopic forehead lifting techniques. A tumescent anesthetic solution was infiltrated into the forehead region to minimize bleeding and ensure adequate analgesia. Four small scalp incisions, approximately 1.5 cm each, were made posterior to the hairline to minimize visible scarring. On each side, two

incisions were placed: one temporal (sagittal) and one paramedian (radial). Incisions were carefully positioned to preserve vascular and neural structures. The paramedian incision, specifically, was placed at the desired peak position of the brow to facilitate precise elevation and fixation. Using endoscopic visualization (Stryker, Kalamazoo, MI, USA), a subperiosteal pocket was meticulously dissected over the frontal bone down to the superior orbital rim and arcus marginalis. Care was taken to protect the supraorbital and supratrochlear neurovascular bundles throughout this dissection to prevent sensory deficits.

Further dissection was conducted laterally over the deep temporal fascia covering the temporalis muscle. The temporal fusion line was released thoroughly across the border between the temporalis muscle and the temporoparietal bones. Additionally, the lateral orbital thickening was carefully released to achieve adequate lateral elevation of the eyebrow tail. In cases of preoperative brow asymmetry, an enhanced release of the arcus marginalis was performed on the more ptotic side. This more extensive release tapered medially to facilitate greater lateral elevation. For significant lateral ptosis, dissection was carried laterally to the root of the helix, thoroughly releasing the lateral retinaculum and superior and inferior temporal septa on the affected side. Medially, the arcus marginalis was precisely released to the supraorbital notch, carefully avoiding disruption of tissues surrounding the contralateral supraorbital neurovascular bundle.

Following optimal brow elevation, the temporal incisions were fixated using 3-0 Monocryl (Ethicon, Raritan, NJ, USA) secured to the deep temporalis fascia. The paramedian incisions were securely fixated to the calvarium of the frontal bone bilaterally using 4-0 Monocryl sutures (Ethicon, Raritan, NJ, USA) anchored to the custom-shaped HDPE brow peg. This fixation strategy provided stable, symmetrical support for the elevated brows while minimizing the potential for postoperative brow ptosis. The peg (Figure 1), which can be shaped intraoperatively using a scalpel or scissors to fit individual patient anatomy, was inserted into the frontal bone calvarium after drilling a pilot hole with a provided 2.8 mm drill bit. The peg's depth, by default set at 6 mm, can be adjusted by trimming the leg. After peg placement, the handling feature can also be trimmed to create a smoother surface. Finally, a suture is passed through the superficial temporalis fascia and tied off (see Supplementary Video S1). No central incisions or temporal skin excision were performed, preserving the natural anatomy and minimizing scarring. After thorough hemostasis and irrigation, the scalp incisions were closed meticulously using surgical staples, ensuring proper apposition of the wound edges for optimal healing.

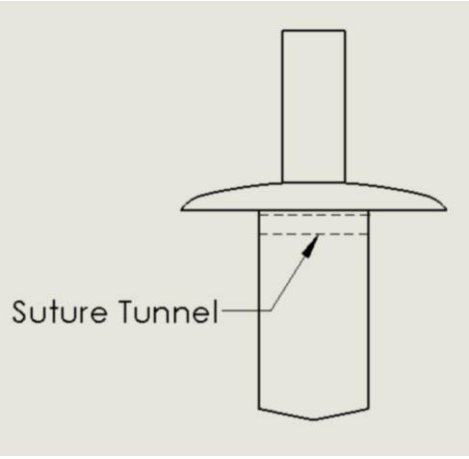

Figure 1. Schematic representation of the polymer brow peg fixation device.

Postoperative assessment included digital photograph analysis to evaluate brow symmetry (defined as $\leq$2 mm of asymmetry between the highest points of the brows)

and documentation of complications, including sensory or motor deficits, implant-related issues, and infections. Supplementary Video S1 is a video showing the HDPE peg and demonstrating its intraoperative use.

Literature Review

In parallel with the clinical study, a narrative review of the literature on brow lifting techniques was conducted to contextualize the innovation described in this paper. The PubMed database was searched using the keywords "periorbital rejuvenation," "brow lift," "eyebrow lift," "forehead lift," "endoscopic brow lift," "nonsurgical eyebrow lift," and "brow fixation." Only English-language articles were included, and no restrictions were placed on the date of publication. Titles and abstracts were initially screened, yielding 81 articles. Of these, 47 were selected for full-text review. The goal of this review was not to provide a systematic meta-analysis, but rather to synthesize the most relevant and representative data pertaining to contemporary brow lift approaches and fixation techniques.

3. Results

A total of 29 patients were included in this study, all of whom underwent bilateral endoscopic brow lifting using the HDPE browlift peg. The patient cohort had a mean age of 62.1 years, ranging from 29 to 78 years, and all participants identified as female. The mean follow-up period was 12.3 months, with follow-up durations ranging from 8 to 17 months. Concomitant aesthetic procedures were frequently performed alongside the brow lift, with 96% of patients undergoing upper blepharoplasty, 60% undergoing lower blepharoplasty, and 20% receiving facelifts.

Postoperative results demonstrated that all patients achieved brow symmetry within 2 mm. No patients reported implant extrusion, wound dehiscence, alopecia, wound infection, or permanent sensory or motor nerve deficit within the study period. Representative examples are shown in Figures 2–5. Although no major complications were reported, three patients experienced minor post-surgical complications. One patient (10%) reported prolonged sensory deficit on one side, which resolved six months postoperatively. One patient experienced an infection localized to the temporal incision but not at the paramedian incision where the polymer peg was implanted. Finally, one patient complained that the implant was palpable on one side, and the implant was subsequently removed in-office under local anesthetic (See Table 1).

Figure 2. Representative pre- (**left**) and postoperative month 6 (**right**) photos of a woman who underwent bilateral endoscopic brow lifting with the novel brow peg fixation device, with concomitant upper blepharoplasty, lower blepharoplasty, fat grafting, and laser resurfacing.

Figure 3. Representative pre- (**left**) and postoperative month 12 (**right**) photos of a woman who underwent bilateral endoscopic brow lifting with the novel brow peg fixation device, with concomitant upper and lower blepharoplasty and lower face/neck lift.

Figure 4. Representative pre- (**left**) and postoperative month 6 (**right**) photos of a woman who underwent bilateral endoscopic brow lifting with the novel brow peg fixation device, with concomitant upper and lower blepharoplasty.

Figure 5. Representative pre- (**left**) and postoperative month 6 (**right**) photos of a woman who underwent bilateral endoscopic brow lifting with the novel brow peg fixation device, with concomitant upper and lower blepharoplasty.

Table 1. Descriptive statistics for the cohort including age, follow-up, and complications.

Mean Age (years)	62.1
Mean Follow-Up (months)	12.3
Concomitant Procedures	Upper Blepharoplasty (96%) Lower Blepharoplasty (60%) Face Lift (20%)
Complications	Prolonged Paresthesia (n = 1, resolved at 6 months) Wound Infection (n = 1, not at implant site) Palpable Implant (n = 1, removed)

4. Discussion and Conclusions

Open brow lift techniques (coronal, hairline, direct, etc.) versus endoscopic approaches each have distinct profiles of advantages and limitations. Open approaches remain very effective for achieving significant and long-lasting brow elevation, and they allow direct excision of excess skin and precise contour adjustments. For example, a classic coronal lift can reliably elevate the brow and even reshape the hairline, with results that often last many years. However, open lifts come with notable downsides: long scalp incisions that can result in visible scarring or hair loss, prolonged numbness from sensory nerve injury, and a higher risk of postoperative hematoma or infection given the larger dissection area [12]. Patient satisfaction with open brow lifts can be tempered by these trade-offs, and such techniques are less acceptable to those who cannot tolerate conspicuous scars (e.g., younger patients or those without bangs or headwear to conceal scars). Direct and mid-forehead lifts, while simpler, invariably leave scars on the forehead or brow; these are generally reserved for older patients (especially men with deep forehead wrinkles or receding hairlines) or for cases like facial nerve palsy where scar camouflage is less of a concern [13].

By contrast, the endoscopic brow lift avoids a large incision and tends to produce higher initial patient satisfaction due to minimal scarring and quicker recovery. Objective comparisons have shown endoscopic techniques can achieve comparable brow elevation to open methods in many cases [14]. Nevertheless, long-term follow-up has revealed that brow position achieved by endoscopic lifts can regress to some degree over time, particularly if fixation is weak or if the patient has heavy, inelastic tissues. In practice, some surgeons mitigate this by combining brow lift with adjunctive measures (for instance, routine perioperative botulinum toxin to paralyze brow depressor muscles and prolong the lift) or by selecting open techniques for patients requiring a more dramatic or enduring lift. Overall, there is consensus that no single technique is ideal for all patients, and the choice must be individualized. This reality fuels ongoing refinements in brow lift methodology.

A particular focus in advancing endoscopic brow lifts is optimizing the fixation method. As reviewed, numerous fixation options exist, each with particular strengths and weaknesses. Here, we review common fixation methods in endoscopic brow lifting and their practical considerations.

4.1. Endogenous Suture Fixation (Bone Tunnels)

This method involves drilling small holes in the outer cortex of the cranial bone and passing non-absorbable sutures through these tunnels to secure the elevated brow tissues to the skull. The technique provides very sturdy fixation, offering excellent long-term stability with a low likelihood of late brow descent. Studies have consistently shown that bone tunnel suture fixation yields durable results with minimal risk of brow relapse [13]. However, the technical complexity of this approach is relatively high. The surgeon must perform precise bone drilling and suture passage under the elevated flap, often with limited visualization,

which can extend operative time. Despite these challenges, the cost is minimal, as the technique requires only standard sutures and drill bits without the need for proprietary implants or devices. Complication rates are low, particularly because no permanent foreign body is left behind aside from the buried suture. Still, there is a small but real risk of injury during bone drilling, including potential calvarial perforation or bleeding if performed improperly [15]. Patient satisfaction with bone tunnel fixation is generally high due to the absence of palpable hardware and the sustained elevation achieved [16]. Nevertheless, the technique's steeper learning curve may deter some surgeons, particularly those less familiar with osseous surgical maneuvers or working in settings without surgical assistants.

4.2. Metallic Screw or Anchor Fixation

In this technique, metallic implants such as titanium screws or proprietary devices like Mitek anchors are inserted into the frontal bone, to which the brow tissues or attached sutures are secured. These anchors provide excellent initial fixation strength, reliably holding the brow in its elevated position throughout the healing period [7]. The technical complexity of this approach is considered moderate. Placement is typically faster and less technically demanding than bone tunnel drilling since the anchor is simply inserted into a pilot hole and secured. However, the technique often requires special instrumentation and carries a higher material cost due to the proprietary nature of the implants. While generally safe, metallic implants are associated with a small risk of complications. These include local infection, extrusion, and patient discomfort if the implant is placed too superficially [15]. Additionally, implants can become palpable, especially in patients with thin skin or minimal subcutaneous tissue, and may cause local irritation [8]. If the implant becomes symptomatic or problematic, surgical removal may be necessary, adding to patient burden and healthcare costs. Patient satisfaction is generally good when no complications arise, as the elevation achieved tends to be robust. However, any visibility or discomfort from the implant can undermine the cosmetic result and lead to dissatisfaction or revision surgery.

4.3. Bioabsorbable Implant Fixation

Bioabsorbable fixation methods, such as the Endotine device, employ polymeric tines or resorbable screws that physically engage the scalp or brow tissue and hold it against the bone. These implants provide good immediate fixation strength and are designed to degrade over approximately three to six months, by which time the tissues are expected to be biologically anchored in their new position through scar formation [17]. The implant is typically inserted into a predrilled hole, and the elevated flap is engaged via pressure or suture attachment. The relative ease of placement contributes to surgical efficiency, though these devices add to the procedure's overall cost. Complications are generally infrequent but can include transient firmness under the skin as the implant resorbs, minor local inflammation, or, in rare cases, incomplete resorption with partial extrusion of a device fragment [18,19]. Furthermore, because the fixation strength diminishes as the implant degrades, there is a risk of brow position relapse if fibrous fixation has not fully developed, particularly in patients with heavier soft tissues. Patient satisfaction is high when the device performs as intended, as there is no need for hardware removal, and the result is generally smooth and scarless. Still, any period of palpable firmness or uneven resorption can be bothersome and detract from the aesthetic outcome.

4.4. Tissue Adhesive (Fibrin Glue)

This method utilizes fibrin glue to reattach the elevated periosteum and galea directly to the calvarium without the use of mechanical anchors or sutures [4]. While conceptually appealing for its simplicity and lack of foreign body implantation, fibrin glue offers only modest fixation strength. It may help reapproximate broad areas of tissue, but is often

insufficient to counteract gravity and the action of brow depressor muscles in the early postoperative phase. Clinical studies have documented a tendency for several millimeters of early brow descent with glue-only fixation, and some have reported measurable brow position regression by three months postoperatively, in contrast to more rigid fixation techniques [13,20]. On the technical side, this method is the least complex—it requires no drilling, anchoring, or hardware placement, and simply involves applying the adhesive and compressing the scalp flap into position. The cost is moderate; while glue itself is an additional expense, it is generally less costly than proprietary fixation devices. Complications are uncommon but include minor risks such as seroma formation or hematoma if the glue fails to eliminate potential dead space [21]. Patient satisfaction is variable. Many patients appreciate the absence of implants and the resulting smooth forehead contour, but satisfaction often declines if the aesthetic effect is short-lived due to inadequate brow elevation or recurrence of ptosis. Consequently, fibrin glue fixation has largely fallen out of favor as a standalone method and is now typically reserved for minor lifts or used in combination with other fixation techniques.

4.5. Considerations

Each of these fixation strategies, while effective in certain respects, also underscores the limitations and unmet needs in brow lift surgery. A comprehensive review reveals several recurring challenges that affect surgical efficiency, patient comfort, and long-term outcomes, highlighting the importance of continued innovation in this field.

One major concern is invasiveness. Techniques such as bone tunnel fixation, while offering excellent long-term results, can prolong operative time and require more extensive dissection or additional incisions to safely and effectively secure sutures to the calvarium. As described above, open brow lift techniques, though highly effective in achieving significant elevation and reshaping, are by their nature far more invasive, often necessitating long incisions across the scalp and resulting in greater postoperative morbidity [22]. These procedures can lead to prolonged recovery times, potential alopecia along the incision line, and a higher risk of sensory nerve injury. For both surgeons and patients, reducing surgical morbidity and minimizing the invasiveness of fixation strategies remains a pressing priority.

A second issue is implant palpability and patient comfort. Many exogenous fixation methods—including metallic screws, plates, or even large absorbable implants—may be palpable beneath the skin, especially in patients with thin soft tissue coverage [23]. This can result in aesthetic dissatisfaction or discomfort and, in some cases, necessitate secondary surgery for implant removal [24]. Ideally, a fixation method would provide durable support without being perceptible to the patient once healing is complete.

Recurrence or relapse of brow ptosis is another critical concern, especially with fixation methods that provide only transient support. Techniques that rely on adhesives or rapidly dissolving implants may fail to maintain adequate tension long enough for tissue fibrosis to secure the brow in its elevated position [20]. Even when initial postoperative results are satisfactory, the brow can gradually descend over time if the fixation weakens prematurely, compromising the long-term aesthetic benefit. As such, maintaining lift longevity is a central goal for both patients and surgeons.

The use of foreign materials introduces additional concerns regarding implant extrusion, tissue inflammation, and infection. Although relatively rare, infections associated with brow fixation hardware have been documented and can be particularly troublesome if the device becomes integrated or difficult to retrieve. Metallic implants, for example, carry a small but real risk of migration, corrosion, or exposure through thin tissue. Finally, inflammatory and foreign body responses remain a concern, particularly with some absorbable materials [25]. Polymers such as poly-L-lactic acid (PLLA) or polyglycolic acid

(PGA), while generally safe, may elicit a local inflammatory reaction as they degrade. This can lead to prolonged swelling, firmness, or discomfort at the implant site. Even permanent materials are not exempt from complications, as they can occasionally result in chronic irritation or fibrous capsule formation. Ideally, a fixation method should integrate smoothly into surrounding tissues without inciting a significant inflammatory response or foreign body reaction. These complications demonstrate the need for materials that are not only structurally stable and durable but also biocompatible and minimally reactive.

Lastly, cost and accessibility are considerations. Proprietary fixation devices, such as bioabsorbable implants or suture anchors, significantly increase the cost of the procedure. While these devices may improve surgical efficiency or offer certain mechanical advantages, their price point may place them out of reach in resource-limited settings or for patients paying out of pocket. Thus, the development of a cost-effective fixation alternative could expand access to endoscopic brow lift procedures and make aesthetic surgery more equitable.

Taken together, these limitations illuminate the trade-offs that surgeons must navigate when selecting a brow fixation method. They also highlight the need for continued refinement of materials and techniques that optimize stability, minimize invasiveness, reduce costs, and enhance patient comfort, all while ensuring reliable, long-term aesthetic outcomes.

4.6. HDPE Brow Peg

We developed a novel high-density polyethylene (HDPE) peg (Su-Por, Poriferous) for brow fixation and forehead lift, offering a minimally invasive, reliable, and straightforward alternative to existing techniques. While HDPE has a longstanding track record in craniofacial reconstruction due to its biocompatibility, structural stability, and favorable tissue integration, Su-Por HDPE specifically differs from other commonly used implants, such as Medpor, by providing increased flexibility for easier intraoperative handling and higher porosity that facilitates enhanced fibrovascular ingrowth. These characteristics promote superior integration, effectively "locking" the implant in place, and reduce the risks of implant migration or extrusion. In our experience, once the HDPE peg is in position and the brow tissues heal, it achieves a stable fixation that maintains symmetric brow elevation with minimal implant prominence. The peg's design includes a flat, trimmable head that sits flush with the bone surface; we found that careful intraoperative trimming of this implant yields a very low-profile result.

In this study, fixation of the paramedian incisions was achieved using a single-pass 4-0 Monocryl suture. Although Monocryl loses tensile strength relatively quickly, we selected it to ensure sufficient initial fixation while minimizing long-term foreign material presence and associated risks of chronic inflammation or palpable sutures. Importantly, no clinically apparent "cheesewiring" effect or related complications attributable to suture choice were encountered in our patient cohort. We hypothesize that by the time Monocryl's tensile strength diminished, adequate fibrous tissue integration around the porous HDPE peg had occurred, independently providing long-term mechanical stability.

Among the 29 subjects in our cohort, all patients achieved postoperative brow symmetry within 2 mm, with no cases of relapse or extrusion during the 12-month follow-up period. Our cohort experienced only three minor complications: a sensory deficit that resolved after six months, a temporal port infection unrelated to the peg, and one instance of palpable implant, which was subsequently removed. Postoperative headache is the most commonly reported adverse effect [14]. However, in the present study, no patient reported postoperative headaches. Overall, the HDPE demonstrated excellent biocompatibility and safety. No instances of peg extrusion, infection involving the implant, or chronic inflammation were observed

The mean age of our cohort was 62 years, a population that presents with distinct anatomical and functional considerations compared with younger patients. The satisfactory functional and aesthetic outcomes of the HDPE peg reinforce its potential use cases. Nonetheless, limitations remain in our study. The relatively small cohort restricts our ability to draw definitive conclusions about the long-term stability and durability of the HDPE peg. Our sample size was based on the number of consecutive eligible patients treated within the specified study timeframe, given its retrospective nature. Additionally, the cohort included only female patients, which further restricts the generalizability of these findings. The relatively short follow-up period (mean 12.3 months), reflecting typical outpatient follow-up patterns and patient compliance constraints, limits our ability to draw definitive conclusions about long-term stability or delayed complications. Finally, our study lacks standardized, objective measurements for brow symmetry. Although we defined symmetry clinically as $\leq$2 mm of asymmetry, the assessment relied on qualitative surgeon evaluation rather than precise tools such as digital calipers or photographic coordinate analyses. Incorporating these objective measurements in future studies will be essential to reduce bias, enhance reproducibility, and strengthen conclusions regarding the efficacy of this brow fixation technique. Future studies with larger, prospectively determined sample sizes and more diverse patient demographics, including male patients and those with varied anatomical characteristics, are necessary to corroborate and extend our results.

In summary, brow lift surgery has evolved significantly from the era of long incisions and extensive scalp dissections to the current preference for endoscopic, minimally invasive techniques. Each incremental innovation, whether it be new incision placements, endoscopic visualization, or novel fixation devices, has aimed to improve the balance between aesthetic benefit and surgical risk. Fixation of the elevated brow remains a critical element that can influence both the short-term success and long-term longevity of the procedure. Traditional fixation methods like sutures in bone tunnels and various implantable anchors each solve part of the problem but introduce new challenges, be it technical difficulty, hardware complications, or cost. Our introduction of a porous HDPE brow peg represents a continuation of this innovation, seeking to maintain long-lasting hold and biocompatibility while mitigating invasiveness and palpability. Early results are encouraging, showing the technique to be safe, customizable to patient anatomy, and effective in achieving the desired aesthetic outcome with minimal complications. If supported by further research, the HDPE peg or similar polymer implants could become a useful addition to the armamentarium of brow lift fixation options.

Supplementary Materials: The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/jaestheticmed1010003/s1, Video S1: Packaging and intraoperative use of the novel high-density polyethylene brow peg.

Author Contributions: H.B. contributed to the following: methodology, visualization, and writing—original draft. T.S.C. contributed to the following: writing—review and editing. S.R. contributed to the following: conceptualization, data curation, formal analysis, methodology, project administration, visualization, and writing—review and editing. All authors have read and agreed to the published version of the manuscript.

Funding: No external funding was received for this study.

Institutional Review Board Statement: The study complied with the Health Insurance Portability and Accountability Act and adhered to the tenets of the Declaration of Helsinki on ethical principles for medical research and qualified for institutional review board waiver.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study. Written informed consent has been obtained from the patient(s) to publish this paper.

Data Availability Statement: Deidentified data is publicly available at the following link: https://docs.google.com/spreadsheets/d/1n-4FrU7QDv4HR_DKRzUvur8WTrbp3AXE/edit?usp=sharing&ouid=116876087435441782247&rtpof=true&sd=true (accessed on 11 June 2025).

Conflicts of Interest: The authors have no financial relationships or conflicts of interest to disclose related to the content of this manuscript. The authors have no affiliations with or involvement in any organization or entity with any financial or non-financial interest in the subject matter discussed in this article.

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