

Discussion on PDO Thread Lifting Combined with Filling Anti-aging Scheme Based on Facial Asymmetry Typing

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Abstract: This study aimed to explore precise minimally invasive facial anti-aging strategies for aging-induced facial asymmetry. Based on clinical facial asymmetry typing, the paper elaborated on the clinical application of PDO thread lifting combined with facial filling therapy. By analyzing the aging mechanisms and minimally invasive plastic surgery characteristics of three common asymmetric types, it summarized targeted treatment ideas, operational key points, clinical advantages and precautions of the combined scheme. The results showed that typed combined therapy can effectively improve facial soft tissue relaxation, volume loss and contour imbalance, overcome the limitations of single treatment, and optimize the symmetry and naturalness of anti-aging outcomes. With high clinical safety and applicability, this scheme provides a reliable reference for minimally invasive correction of asymmetrical facial aging.

Keywords: facial asymmetry typing; PDO thread lifting; filling treatment; combined anti-aging; minimally invasive plastic surgery

1. Introduction

Facial aging is typically characterized by soft tissue relaxation, volume loss and bilateral facial asymmetry, which severely impairs facial coordination and aesthetics. Most beauty seekers present asymmetric and heterogeneous facial aging, making single PDO thread lifting or filling treatment unable to achieve refined anti-aging effects. PDO threads exert lifting, tightening and collagen-stimulating effects, while filling materials precisely supplement soft tissue volume. The combination of the two technologies realizes dual effects of soft tissue resetting and contour remodeling. Based on clinical facial asymmetry typing standards, this paper constructs targeted combined anti-aging schemes to provide standardized theoretical and technical support for clinical minimally invasive facial rejuvenation.

2. Classification and Aging Characteristics of Facial Asymmetry

2.1 Soft Tissue Relaxation Asymmetry

As the most common clinical type, this asymmetry stems from inconsistent degenerative aging of bilateral facial soft tissues without skeletal or congenital malformations. With aging, the supporting force and elasticity of the SMAS fascia layer decline unevenly, causing unilateral cheek ptosis, deepened nasolabial folds and blurred mandibular margin asymmetry. It mainly affects people over 35 years old, aggravated by acquired bad habits such as unilateral chewing and single-side sleeping. Pathologically, it is dominated by soft tissue displacement and fascial support failure with insignificant volume loss[1]. The core clinical demand is tissue lifting and tightening, which is the primary indication for single PDO thread lifting and the basic adaptive type for combined therapy.

2.2 Volume Loss Asymmetry

This type is caused by uneven bilateral loss of facial fat, collagen and hyaluronic acid, manifesting as unilateral temple depression, cheek emaciation and malar fat pad collapse, resulting in unbalanced facial fullness and stereoscopic sensation. It features local tissue volume deficiency without obvious soft tissue ptosis, and may occur alone or with mild relaxation. Single PDO thread lifting cannot repair tissue depression or volume defects, failing to achieve ideal outcomes[2]. It is prevalent in premature aging young and middle-aged groups and severely aged elderly groups, serving as the core indication for facial filling and a key application scenario of combined anti-aging treatment.

2.3 Mixed Asymmetry

Mixed asymmetry, accounting for the highest proportion of compound facial aging in middle-aged and elderly patients, combines the dual characteristics of soft tissue relaxation and volume loss. Patients present unilateral or bilateral tissue ptosis and fascial relaxation, accompanied by local facial depression, leading to complex contour imbalance and disproportionate facial morphology. Single thread lifting cannot improve depression, while simple filling fails to tighten flabby tissues and

may even aggravate facial bloating[3]. This type requires comprehensive layered intervention, making it the core clinical application scenario of PDO thread lifting combined with filling therapy.

3. Typed Combined Anti-aging Scheme Design

3.1 Soft Tissue Relaxation Asymmetry: Thread Lifting Dominant, Filling Auxiliary

The core treatment goal is to reset displaced soft tissues, strengthen fascial support and correct bilateral relaxation differences. Preoperative evaluation accurately marks asymmetric areas and formulates differentiated wiring schemes: increased thread quantity and optimized lifting angles are applied on the severely relaxed side to target nasolabial folds, cheek ptosis and blurred mandibular margins[4]. Serrated PDO threads provide mechanical lifting and stimulate collagen regeneration to tighten tissues fundamentally. Micro-dose small-molecule hyaluronic acid filling is auxiliary used to improve superficial fine lines and tiny depressions after lifting. This minimally invasive scheme features rapid recovery, natural tightening effect and high safety, suitable for mild relaxation-type facial asymmetry.

3.2 Volume Loss Asymmetry: Filling Dominant, Thread Lifting Auxiliary

Treatment focuses on targeted volume supplementation and bilateral contour balance. Preoperative three-dimensional assessment calculates bilateral volume differences to determine filling dosage and injection layers[5]. Cross-linked hyaluronic acid or autologous fat is adopted for layered filling of temples, malar areas and cheeks to restore facial fullness and symmetry. Most patients have mild superficial skin relaxation in depressed areas; thus, superficial smooth PDO threads are implanted to stimulate collagen regeneration, improve skin fitting degree and eliminate residual wrinkles after filling. Differentiated quantitative filling avoids rigid facial contours, and auxiliary thread tightening stabilizes filling effects, adapting to all volume-loss asymmetric facial aging cases.

3.3 Mixed Asymmetry: Balanced Combined Treatment

For complex mixed aging with both ptosis and volume defects, a layered and zoned balanced scheme is adopted with the principle of "lifting first, filling later". In severely ptotic areas (cheeks, mandibular margin, lower face), serrated and suspension PDO threads are implanted via multi-dimensional wiring to reset deep soft tissues and reinforce SMAS fascial support. In volume-deficient mid-facial areas (temples, tear troughs), accurate layered filling is performed to repair tissue defects. Thread quantity, lifting strength and filling dosage are adjusted differentially according to bilateral aging differences, so as to comprehensively correct moderate and severe compound facial asymmetry.

4. Clinical Advantages and Implementation Key Points of Typed Combined Anti-aging Scheme

4.1 Core Clinical Advantages

Compared with single anti-aging therapy, typed combined treatment achieves precise, personalized and comprehensive intervention. It compensates for the defects of single thread lifting (unable to improve volume loss) and single filling (unable to correct tissue ptosis, easy to cause facial bloating and stiffness). The scheme integrates lifting tightening, volume remodeling and symmetrical beautification, covering mild, moderate and severe asymmetrical facial aging[6]. With minimal trauma, rapid recovery and low complication rate, it conforms to the safe and natural development trend of minimally invasive medical cosmetology, and significantly improves postoperative aesthetics and patient satisfaction.

4.2 Intraoperative Standardized Implementation Key Points

To ensure the efficacy and safety of typed combined anti-aging treatment, intraoperative standardized operation procedures must be strictly implemented and core technical points must be controlled accurately. Firstly, preoperative typing evaluation should be precise and rigorous. Comprehensive judgment is combined with clinical facial examination, auxiliary imaging evaluation and patients' aging characteristics to clarify the typing of facial asymmetry and core aging problems, so as to avoid treatment scheme errors caused by inaccurate typing. Secondly, the surgical operation sequence should be standardized, adhering to the principle of soft tissue reduction first and contour filling shaping later, ensuring that displaced soft tissues are reset in place before volume filling to guarantee natural and symmetrical facial contour. Bilateral differentiated operation must be implemented during the operation, and the thread wiring mode, thread quantity, lifting angle and filling dosage should be accurately adjusted according to the relaxation and depression degree of bilateral faces to prevent insufficient correction or over-correction caused by uniform operation[7]. Meanwhile, the implantation level should be strictly controlled: PDO threads are implanted into the SMAS fascial layer for deep lifting and fixation, and

filling materials are injected hierarchically into subcutaneous and fat layers to avoid facial unevenness, thread exposure and filling agglomeration caused by confused operation levels. The whole operation process adheres to strict aseptic operation principles to effectively avoid intraoperative and postoperative complications such as infection and hematoma and ensure surgical safety.

4.3 Postoperative Nursing and Effect Maintenance Key Points

Standardized postoperative nursing is the key link to ensure the efficacy of combined anti-aging treatment, prolong the maintenance time of cosmetic effect and avoid postoperative secondary facial asymmetry. The first week after operation is the key recovery period. Patients are required to keep facial muscles relaxed, avoid large-amplitude chewing and exaggerated facial expressions, and prohibit pressing and rubbing the treatment area to prevent thread displacement and filling material diffusion which may cause bilateral facial contour asymmetry. In the short term after operation, strengthen facial sun protection and moisturizing care to avoid postoperative skin pigmentation, and avoid spicy and seafood diet to reduce postoperative facial swelling and inflammatory reaction. Regular reexamination is required within one month after operation to observe the subsidence of facial swelling and the symmetry of facial contour, and timely micro-adjustment and repair are carried out for slight asymmetry and local unevenness. In addition, clinicians should guide patients to correct bad living habits such as unilateral chewing and long-term single-side sleeping, so as to reduce the recurrence risk of facial asymmetry from the source. Clinical data verify that standardized postoperative nursing can significantly improve the overall treatment effect, prolong the duration of anti-aging effect, reduce the incidence of postoperative complications and secondary facial deformity, and ensure the long-term stability of clinical treatment effect.

5. Conclusion

Facial asymmetry is a core manifestation of facial aging, and typed precise combined therapy is a key trend of minimally invasive facial rejuvenation. The PDO thread lifting combined with filling scheme formulates differentiated strategies for relaxation-type, volume-loss-type and mixed facial asymmetry, breaking through the limitations of single anti-aging technology. It synchronously realizes deep tissue lifting, volume supplementation and contour symmetrical remodeling, with the advantages of minimal invasion, high safety and comprehensive efficacy. Suitable for all age groups with different degrees of asymmetrical facial aging, the scheme has important clinical application value. Further optimization of typing standards and technical parameters will improve the precision and safety of minimally invasive combined anti-aging treatment.

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