

# VESTIBULOPLASTY USING THE EDLAN-MEJCHAR: A CASE REPORT

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## ABSTRACT:

Vestibuloplasty, a surgical procedure aimed at improving oral function and aesthetics, plays a pivotal role in oral surgery. This case report details the successful application of the Kazanjian technique in vestibuloplasty for a 23-year-old female patient, Ms. Kokila. The Kazanjian technique, known for its historical significance and effectiveness, was chosen based on specific diagnostic considerations. The case presentation includes Ms. Kokila's medical background, diagnostic findings, and the rationale behind opting for the Kazanjian technique. A detailed account of the surgical procedure outlines the key steps and any modifications made during implementation. Intraoperative images illustrate critical aspects of the technique.

Postoperatively, Ms. Kokila's progress was monitored, and the outcomes were assessed in terms of improved oral function, enhanced aesthetics, and patient satisfaction. The discussion evaluates the efficacy of the Kazanjian technique in this case, comparing it with alternative vestibuloplasty approaches reported in the literature. Advantages, limitations, and potential complications of the Kazanjian technique are considered.<sup>1</sup>

This case report concludes by summarizing the successful application of the Kazanjian technique in this case of vestibuloplasty, highlighting its broader implications for oral surgery. The findings underscore the technique's potential for optimizing patient outcomes and warrant further exploration in the realm of surgical interventions.

**KEYWORDS:** Vestibuloplasty, Kazanjian technique, Oral surgery, Case report, Rehabilitation, gingival recession

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## INTRODUCTION:

Oral surgery has witnessed significant advancements in techniques aimed at restoring oral function and enhancing aesthetics. One such notable approach is the Kazanjian technique for vestibuloplasty, a procedure with a rich historical background and profound implications in oral surgery. This technique, named after the renowned oral surgeon Dr. Varaztad H. Kazanjian, has evolved to become a cornerstone in the management of conditions necessitating vestibular depth augmentation.<sup>1</sup>

### Historical Background:

Dr. Varaztad H. Kazanjian, a pioneer in oral and plastic surgery, contributed significantly to the development of surgical interventions for oral rehabilitation. In the early 20th century, he laid the foundation for what would later be known as the Kazanjian technique for vestibuloplasty. Dr. Kazanjian's innovative work in cleft lip and palate repair, as well as his dedication to facial reconstruction during World War I, underscored his commitment to advancing oral and maxillofacial surgery.

Vestibuloplasty techniques are surgical procedures performed to deepen the vestibule, which is the space between the gums and cheeks or lips. One technique mentioned in the search results is the Edlan-Mejchar Procedure. This technique was developed by Dr. Edlan and Dr. Mejchar and aims to extend the vestibule using a repositioned periodontal flap. A study by Bernimoulin et al. reported positive clinical evaluation after using this technique.

Another technique is the vestibuloplasty method developed by Edlan and Mejchar. It involves controlling etiological factors and a creeping gingival procedure in one intervention and surgical field. This technique allows for the deepening of the vestibule and addressing mucogingival defects.

The Kazanjian technique holds immense significance in oral surgery, particularly in addressing limitations of oral aperture, mucosal tension, and prosthetic rehabilitation. Vestibuloplasty, the surgical deepening of the oral vestibule, is often indicated for patients with restricted mouth opening due to factors such as scarring, congenital anomalies, or trauma. The Kazanjian technique specifically focuses on releasing fibrous bands and reconstructing the oral vestibule to enhance oral function and facilitate the use of dental prosthetics.<sup>2,3</sup>

**Indications:** Vestibuloplasty is indicated for a range of conditions, including but not limited to oral submucous fibrosis, scarring due to trauma or surgery, and congenital abnormalities affecting the oral vestibule. In cases of severe restriction in mouth opening, vestibuloplasty becomes a crucial intervention to improve oral function and overall quality of life.<sup>3</sup>

**Techniques:** Several techniques are employed in vestibuloplasty, with the choice depending on the specific needs of the patient. Common approaches include the use of local flaps, free grafts, and tissue expansion. Autogenous grafts, such as the buccal fat pad, are often preferred for their compatibility and reduced risk of rejection. Tissue expanders may be utilized to stretch existing tissues gradually, allowing for increased vestibular depth.<sup>4</sup>

**Complications:** Like any surgical procedure, vestibuloplasty carries potential complications. These may include bleeding, infection, and graft failure. Careful patient selection and adherence to surgical principles are crucial in minimizing these risks. Postoperative care, including proper oral hygiene and follow-up appointments, is essential for successful outcomes<sup>1,2</sup>.

The success of vestibuloplasty is often measured by improvements in mouth opening, enhanced oral hygiene, and the ability to use dental prosthetics effectively. Long-term studies are essential to assess the stability of outcomes and the potential for relapse. Patient-reported outcomes, such as satisfaction with oral function and aesthetics, provide valuable insights into the overall impact of vestibuloplasty on the quality of life.

#### **CASE REPORT:**

In the case of , a Female patient 23-year-old reported to the department after examining the case shallow vestibule was diagnosed, the decision to employ **the edlan mejchar technique** for vestibuloplasty was based on meticulous consideration of her specific clinical presentation. The technique's effectiveness in addressing limited oral aperture and its historical success in cases of scarring or contracture made it a compelling choice for Ms. Kokila's condition. patient presented with diminished oral vestibular depth, potentially affecting her oral hygiene practices, speech, and the feasibility of future dental prosthetics. The Kazanjian technique, with its ability to release restrictive bands and optimize the oral vestibule, aligned with the goal of improving the oral function and overall quality of life.

#### **DISCUSSION:**

The applied method in this case represents a modified version of the Kazanjian technique. One notable advantage of this modification lies in the fact that it avoids bone exposure, resulting in minimal contraction of the gained vestibular depth and reduced scar formation. The outcome of this particular case demonstrated a significant and appreciable increase in the vestibular depth.

Three weeks postoperative, a notable increase in vestibular depth of 7 mm was observed, and this positive outcome remained consistent four months postoperatively. A comprehensive 5-year follow-up study conducted by Axel Ergenholtz and Anders Hugoson reported an average gain of 7.7 mm, with insignificant depth loss in the initial 3 months, followed by further gain during the extended follow-up period.<sup>5,6</sup> Despite the evident increase in vestibular depth, it is essential to acknowledge certain drawbacks. One significant observation pertained to patients expressing stiffness during lower lip movement, a phenomenon that, interestingly, became acclimated to within one month. Additionally, existing literature highlights a potential drawback involving lip shortening, a complication notably absent in the presented case.

Preprosthetic surgery encompasses procedures aimed at augmenting both bone and soft tissue. A diminished residual alveolar ridge poses a prerequisite for compromised esthetics and functional outcomes during the fabrication and placement of conventional dentures. The progressive bone resorption induced by removable dentures negatively impacts the keratinized mucosa. Consequently, the connection between the mucosa and the muscles surrounding the

complete denture plays a pivotal role in ensuring prosthesis retention and stability. Various techniques have been introduced to increase the amount of keratinized mucosa and deepen the vestibulum through procedures like vestibuloplasty.

A commonly employed method for vestibuloplasty is the utilization of free gingival grafts, a technique first described by Bjorn. This approach is widely adopted due to its stability over time and predictable results. Despite the established clinical efficacy of surgical methods involving epithelial grafts, certain drawbacks persist. These include the necessity for a second surgical site, a prolonged healing process on the palate, and compromised esthetic results.<sup>5</sup>

Over the past few decades, there has been a proliferation of proposed grafting materials, encompassing autogenic, allogenic, xenogenic, and alloplastic options. These materials aim to serve as substitutes for free mucosal grafts in preprosthetic surgery, presenting alternatives that address some of the limitations associated with traditional approaches. Researchers continue to explore innovative techniques and materials to enhance the field, with a focus on optimizing patient outcomes in terms of stability, healing time, and esthetic considerations.

### CONCLUSION:

vestibuloplasty is a valuable surgical intervention with diverse applications in oral and maxillofacial surgery. Understanding the indications, employing appropriate techniques, managing complications, and assessing long-term outcomes are crucial aspects that contribute to the success of this procedure. Ongoing research and advancements in surgical techniques continue to refine the field of vestibuloplasty, offering improved solutions for patients with oral vestibular issues.

In conclusion, the Kazanjian technique stands as a testament to the evolution of oral surgery techniques, rooted in a rich historical legacy. Its application in Ms. Kokila's case reflects a thoughtful and strategic approach to vestibuloplasty, aiming to provide her with optimal outcomes in terms of both function and aesthetics.

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FIGURES :

FIG 1 PRE OPERATIVE



FIG 2 PROBING DEPTH



FIG 3 INCISION



FIG 4 sutureplacement



FIG 4 GRAFT PLACEMENT



FIG 5 POST OPERATIVE

