



MULTIDISCIPLINARY APPROACH TO SMILE RECONSTRUCTION IN A YOUNG PATIENT: ADDRESSING AESTHETIC AND FUNCTIONAL NEEDS

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Objective:

To demonstrate the effectiveness of an interdisciplinary treatment approach—integrating conservative therapy, guided periosurgery, implant placement, and prosthetic rehabilitation—in addressing both aesthetic and functional challenges in complex dental cases.

Case report:

A 24-year-old female patient presented with significant dental concerns, including structurally compromised teeth, a pronounced gummy smile, and reduced vertical dimension. These issues not only affected her smile aesthetics but also impaired her ability to chew efficiently and maintain optimal oral hygiene, contributing to lowered self-esteem and dissatisfaction with her appearance.

To address these challenges comprehensively, a four-phase, interdisciplinary treatment plan was developed:



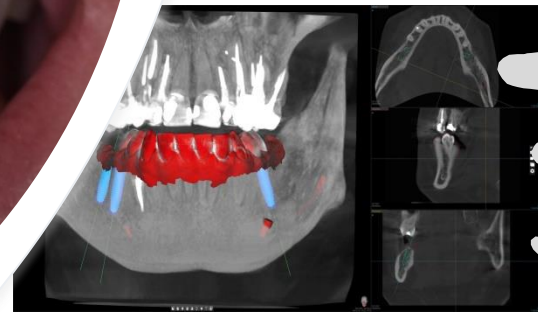
- dental cleaning
- dental fillings
- endodontic treatments with rotary Ni-Ti files
- fiber posts for additional support



- Overeruption of #15,14,13,12,23,24,25 along with surrounding hard and soft tissues
- Short clinical crowns, irregular gingival margin
- Medium-high smile line, >3mm of gingival display, particularly in the lateral segments, adequate keratinized gingiva >4mm, PPD<4mm
- Digital smile design for the planned prosthetic reconstruction and surgical guide fabricated for aesthetic crown lengthening
- Surgery: Single session approach—soft tissue excision, flap elevation, osteotomy, osteoplasty, suturing



- Planning implant positioning using CBCT and patient's pre-op digital impressions
- Analyzing the position of the mandibular canal
- Evaluating bone quality and density
- placing three dental implants 3,75x13mm; 3,75x13; 3,75x11,5 in the posterior regions of the mandible



- Teeth preparation for cut-back zirconia 1.0-2.0 mm reduction
- Subgingival shoulder margin
- Rounded internal angles, 8-10 degrees taper
- Digital impression and body scans for implants' area



Conclusion:

The outcome underscores how collaborative treatment planning can lead to transformative results—both clinically and emotionally—for patients with challenging dental presentations.