

PP-249 Zygoma Implant and All-on-four Supported Prosthetic Restoration in Severely Atrophic Jaws: A case report

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AIM: Implant-supported prosthetic restorations are routine treatments for edentulous patients. However, this is not possible in every case. In atrophic jaws, zygomatic implants, all-on-four concept can be used as an alternative to advanced surgical techniques.

CASE: A 41-year-old female patient who comes to the prosthetic dentistry clinic was examined and it was observed that she had teeth numbered 15, 23, 31,32, 33, 41, 42, 43 and that she had poor bone support periodontally. The patient requested implant-supported prosthetic restoration. After the extraction of all teeth, 4 zygomatic implants were planned for

the maxilla and all-on-four concept for the mandible due to the atrophic crest. During the implant placement, multiunits were placed and osteointegration was awaited. After healing, it was deemed appropriate to have an acrylic hybrid prosthesis. For the prosthetic restoration, an additional type impression was taken, the necessary rehearsals were made and delivered to the patient.

RESULT: Zygoma implant and all-on-four techniques offer a more comfortable process in a shorter time without the need for advanced surgical procedures.

Keywords: zygoma implant, all-on-four, hybrid prosthesis

PP-250 Post-Processing Protocols in 3D Printed Dental Restorations: A Literature-Based Data Analysis

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OBJECTIVES: This literature-based data analysis aims to evaluate the effects of post-processing protocols on the physical, mechanical, and surface properties of dental restorations produced using 3D printing technologies (SLA, DLP, and LCD systems). The objective is to highlight the variability in current approaches and thematically analyze the clinical implications of these differences.

MATERIALS-METHODS: A systematic search of the literature published between 2018 and 2025 was conducted using PubMed, Scopus, and Web of Science databases, in accordance with PRISMA guidelines. Inclusion criteria were: (1) studies involving 3D printed resins, (2) evaluation of at least one post-processing variable (e.g., curing, cleaning, or support removal), and (3) focus on definitive or interim prosthodontic restorations. Studies involving orthodontic models, aligners, or CAD/CAM-milled restorations were excluded. The included studies were categorized into three groups: curing protocols, cleaning procedures, and support structure removal. Due to methodological heterogeneity, no meta-analysis was performed; instead, findings were interpreted through a descriptive, literature-based data analysis approach.

RESULTS: A total of approximately 320 unique studies were identified through prior systematic and narrative reviews. After

applying predefined inclusion criteria, 12 studies were selected for in-depth evaluation in this literature review. Although some included studies were systematic reviews and meta-analyses, this study did not perform an independent meta-analysis. Variations in curing time, light intensity, and atmospheric conditions were found to affect degree of conversion, microhardness, and flexural strength. Cleaning protocols involving different solvents and application techniques influenced surface roughness and dimensional accuracy. The support removal process impacted marginal adaptation, surface integrity, and gloss retention. Despite methodological differences, the overall evidence indicates that post-processing parameters significantly influence clinical performance outcomes.

CONCLUSION: This analysis demonstrates that post-processing protocols significantly affect material quality and clinical applicability. The findings underscore the need for manufacturer-independent, standardized protocols to ensure predictable outcomes in 3D printed dental restorations.

Keywords: "3D printed dental resin", "post-processing", "curing", "cleaning protocol", "support removal", "standardization"