COMMENTARY

Creating Natural-Looking Removable Prostheses: Combining Art and Science to Imitate Nature¹

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Doctors Patras, Kourtis, and Sykaras are to be congratulated for their timely and detailed article describing patient's desires for an esthetic appearance when receiving a complete and/or implant retained overdentures.¹ This article describes in meticulous detail a method of revitalizing the mundane and artificial look of the denture tooth and gingival tissue (cameo surface) arrangement and color, in an effort to enhance a natural appearance. This article is very timely, especially in light of recent surveys indicating an increase in the number of patients who are having complete dentures and implant overdentures. Because patients want to maintain their appearance and self-esteem, it is incumbent that dentistry be able to provide this service as routine versus exceptional to that segment of our patient population.

As far back as the mid-1950s, the late Dr. John P. Frush, DDS, a member of the postgraduate staff in prosthodontics at the University of Southern California (USC), published a number of articles for the *Journal of Prosthetic Dentistry* relating to the importance of color changes in individual teeth and the vital factors of the patient's sex, physical personality, and age (SPA factors) affecting the overall esthetic composition in complete denture fabrication.^{2–6} These concepts and procedures were also adopted by the postgraduate section of USC dental school training. A statement by Dr. John P. Frush, 'There is no surer way to destroy a man's dignity than to give him a denture look,'' supports the authors' intent of the message of this article.

This article presents a detailed method of characterization of both the teeth and the gingival (cameo) surfaces of an implant overdenture. I want to further compliment the authors for their detail in going through a step-by-step method of creating a natural look for both the gingival and tooth portions of the prostheses. It should be noted, however, that clinicians treating prosthetic patients should understand the relevance of the esthetic space and how this interacts with appropriate fabrication procedures in today's technological world.

The esthetic space can simply be described as the distance from the respective anterior maxillary and mandibular alveolar ridge crests measured to the lips at repose and at animation. This space, when qualified and quantified, allows the practitioner to predict the amount of tooth and/or gum display that can be expected in the final restoration. For example, if a patient presents themself for a fabrication of a mandibular prosthesis and the distance between the premandibular ridge crest and mandibular lip at repose is 5 mm or less, then, in order to stay within the confines of both the esthetic and functional plane, it may be necessary to perform an ostectomy prior to implant placement to allow sufficient space for the final appliance.

I also have noted in treating a significant number of patients that a workable space to build a sturdy and esthetically pleasing prosthesis is between 10 and 16 mm depending on the choice of implant restoration. The goal is to deliver a pleasing prosthesis without significant gingival or excess tooth display. Simple measuring instruments can identify these particular aspects prior to implant placement. The vertical space referenced from the premaxillary and/or premandibular alveolar ridge to the corresponding vermilion border of the lip(s) at repose may well determine the appropriate treatment recommendations to our patients.

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This commentary is accompanied by article, "Creating Natural-Looking Removable Prostheses: Combining Art and Science to Imitate Nature" Michael Patras, DDS, Stefanos Kourtis, DDS, Dr. Odont, Nikitas Sykaras, DDS, PhD, DOI 10.1111/j.1708-8240.2011.00493.x.

We encourage each individual practitioner to complete a detailed examination of the patient's facial anatomy and muscular tonicity in relationship to the maxillary/mandibular alveolar ridges. Carefully scrutinizing the esthetic and functional spaces of all patients prior to fabrication of any removable prosthesis will assist in preparing both the patient and the practitioner for a dependable and predictable result.

REFERENCES

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