SCIENTIFIC ARCHIVES OF DENTAL SCIENCES (ISSN: 2642-1623)

Volume 6 Issue 2 February 2023

Review Article

Osseointegrated Implants Deemed Cosmetic or Esthetic?

Louis ZG Touyz[1]* and Leonardo M Nassani[2]

[1]*Faculty of Oral Health and Associated Sciences, McGill University, Montreal, PQ, Canada*

[2]*Division of Restorative and Prosthetic Dentistry, Ohio State University, College of Dentistry, Columbus, Ohio, USA*

***Corresponding Author:** Louis ZG Touyz, Faculty of Oral Health and Associated Sciences, McGill University, Montreal, PQ, Canada.

Received: December 20, 2022; **Published:** January 28, 2023

Abstract

Esthetic Dentistry is durable, emulates pristine nature and rarely requires replacement. Dentistry may be considered cosmetic if it is temporary, not ideal and demands replacement. Osseo-integrated implants (OIP) should last a long time, look natural and withstand all expected functional demands within the range of healthy activity. Although cosmetic-dentistry is temporary and reversible, this appraisal stresses the importance of durability ensuring age related moderators for OIP's, and accordingly deems OIP's as esthetic dentistry.

Keywords: *Cosmetic; Esthetic; Dentistry; Prosthodontics; Teeth*

Abbreviations

CD: Cosmetic Dentistry; ED: Esthetic Dentistry; OIP: Osseo-Integrated Implant

Provenance and Background

All aspects of dentistry may be classified as cosmetic dentistry (CD) or esthetic dentistry (ED). Tooth decoration as Cosmetic Dentistry (CD) has been known to Mankind for millennia [1,2] and practices by some societies includes tooth staining [3,4], decoration [4,6] or mutilation [5-8]. CD ignores physiological reaction (like inflammation), is temporary in nature, does not imitate pristine nature, is decorative, and not expected to be durable [9]. The ultimate practice of Cosmetic Dentistry is Theatrical Dentistry [10]. Esthetic Dentistry (ED) induces no deleterious physiological reaction, is permanent as in health, emulates pristine nature, is expected to be durable [9]. Many oral practitioners and health care workers, are confused as how to conceptualize OIPs, and consequently this sows confusion among patients with regard to understanding, expectations and willingness to undertake therapy.

Aim of the Study

This appraisal reviews the criteria for classifying Cosmetic and Esthetic Dentistry, stresses the appropriate age moderation of prosthetic appliances, and reiterates rationale to classify OIPs as Esthetic Dentistry.

Successfully placed OIPs satisfies most of the requirements to be deemed esthetic dentistry. OIPs demand minimal if any physiological accommodation or tolerance; they also last for most of the patients' life in health; they function optimally; the prostheses they carry emulates age-appropriate modifications of nature; they promote health; they are usually not frivolously decorative and should appear totally natural; the choice of materials is well accepted biologically and don't induce any immunity, inflammation or metabolic dysfunction.

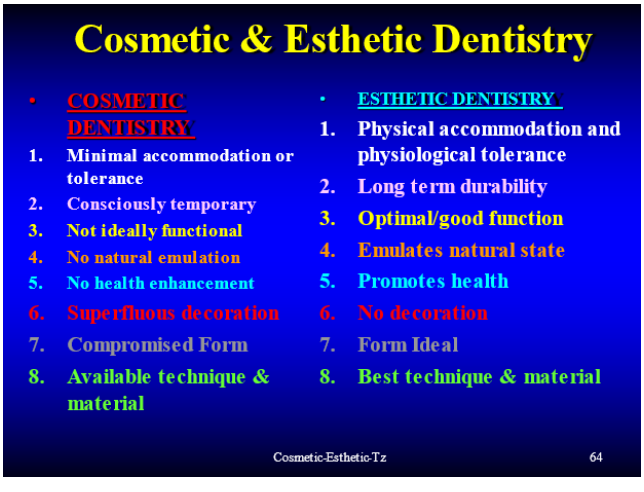


Table 1: Differences between cosmetic and esthetic dentistry. From: TOUYZ LZG, Raviv E, Raviv, M Cosmetic and Esthetic Dentistry? Quintessence International 1999. 30;227-233 [9].

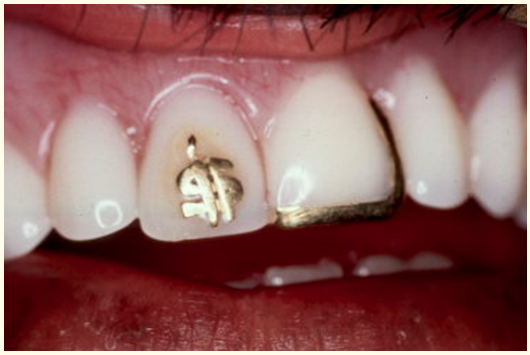


Figure 1: *Cosmetic dentistry: Upper front incisors and canines replaced with removable acrylic prosthesis, and #18 (ADA numeration) is frivolously decorated with a gold $ sign, and #19 has a class IV gold inlay on the distal and incisal edges [9].*

One aspect frequently overlooked by restorative dentists, is that they tend to place pristine, youthful looking prostheses into mouths which have aged. Age-appropriate changes should be artfully integrated into placing prosthesis. This frequently demand a careful selection of a blending in color, and rarely also the reshaping of the crown, length, width and contours, to match those adjacent... and modifying the upper and lower cusps and fossa to optimize mastication without compromising appearance. This is challenging and often requires replacing part or all of the superstructure prostheses. Osseo-integrated Implants (OIPs) are successfully placed for single or multiple missing teeth. The prostheses they carry need to be maintained as meticulously as natural dentition. After placement recall maintenance visits includes evaluation of hard and soft tissues, compliance with oral hygiene and biofilm control, the physical integrity of the prosthesis, and the peri-implant osseous and gingival stability. Any mobility of an OIP is a serious indication of an ailing or failing implant. Consequently, scrutinizing radiographs, full occlusal analysis and soft-tissue assessment becomes part of recognizing, correcting and sustaining durability of OIPs [11].

Discussion

Although some CD uses ED, such as placing diamonds for decorative purposes in teeth, if dental therapy does not emulate pristine nature it is regarded as CD, even if the prostheses may be regarded as permanent and durable [12].

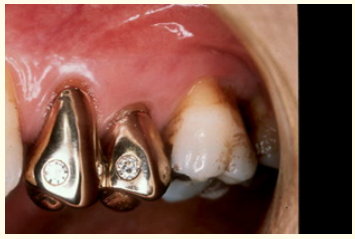


Figure 2: *Cosmetic dental diamonds. This gratuitous decoration is regarded as frivolous cosmetic dentistry. Teeth should not be regarded as receptacles for jewels but as functioning biological organs [12]. TOUYZ LZG, Lamontagne P, Mojon P. Diamonds and Cosmetic Dentistry. Restorative and Aesthetic Practice. 2004 Dec. 6(4) 10-17.*

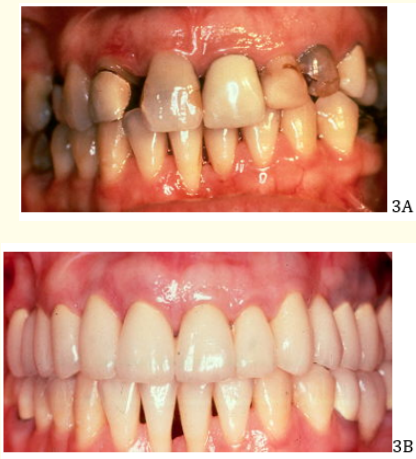
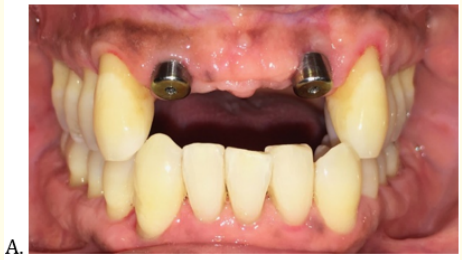


Figure 3A and 3B: *Cosmetic Dentistry: 3A pre-operative presetation. 3B post operative, full mouth rehabilitation using esthetic dental techniques. Note healthy recovery, adaptation and resoution of inlammation of gingiva [9].*



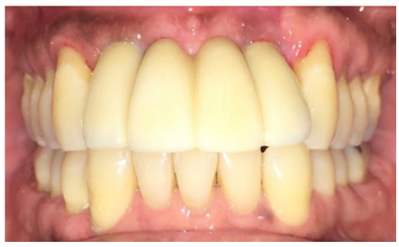
B. 

Figure 4A and 4B: *Esthetic dentistry: Upper and lower anterior incisors. The upper incisors are replaced with a modified fixed prostheses supported by two osseo-integrated implants. Note: A lower incisor was removed, and the space was closed. The three lower incisors harmoniously fill the space available. The result is durable and emulates nature. Accordingly, this therapy is deemed as esthetic [9].*

Should an OIP induce inflammation or progressive bone resorption, it fails as ED, must regarded as CD and as it becomes a temporary prosthesis, it will be destined for replacement to procure sound health, good stability and long-term durability. In one sense, OIPs are a form of body piercing, but this surgical (OIP) procedure is performed to procure optimal replacement of form and function for missing teeth, as opposed to body piercing for other, possible spurious, psycho-social reasons [13]. Successful OIP's must satisfy the stated properties in table 1 to be deemed esthetic dentistry.

Concluding Remarks

Fixed prostheses are generally preferred to removable devices. Optimal form and function are primary aims in dentistry. The appearance impact should be deemed to be visually harmonious. Successful OIPs supported prostheses can be moderated for age changes and facilitate appearance with esthetic adjuncts to promote health, durability and survival. OIP may be regarded as 'Body piercing" but should not be confused with Tattooing or body piercing for cosmetic reasons [13]. The acme of Cosmetic dentistry would be deemed 'Theatrical Dentistry' [10].

Osseo-integrated Implants, well placed, functioning in health, with hard and soft tissue stability, in the long-term ensures survival, allows for pristine emulation of nature and are deemed as esthetic dentistry.

Authors Statement

The authors have no conflict of interest to declare.

Bibliography

1. Pezzoli M. In: Tooth decoration in pre-Columbian America. Minerva Stomatologica. 1976;25(1):33-48.

2. Van Reenen JF. Swallow-tail form of tooth mutilation amongst early Iron-Age people living at Broederstroom Transvaal, circa 500AD. Jnl of the Dent Asstn of S Afr. 1977;32(9):529-533.

3. Flynn M. Black teeth: a primitive method of caries prevention in Southeast Asia. Jnl Am Dent Ass. 1977;95:96-97.

4. Ai S, Ishikawa T, Seino A. "Ohaguro" traditional tooth-staining custom in Japan. Int Dent J. 1965;15(4):426-441.

5. Fastlicht S. Tooth mutilations and Dentistry in pre-Columbian Mexico. Passim. Quintessence Books, 1976.

6. Fitton FS. A tooth ablation custom in the Maldives. Br Dent Jnl. 1993;175(8):299-300.

7. Jones A. Dental transfigurements in Borneo. Br Dent Jnl. 2001;191(2):98-102.

8. Jones A. Tooth mutilation in Angola. Br Dent Jnl. 1992;173(5):177-179.

9. Touyz LZG, Raviv E, Raviv M. Cosmetic and Esthetic Dentistry? Quintessence International. 1999;30:227-233.

10. Touyz LZG. Theatrical Dentistry. Principles and practice. Cosmetol & Oro Facial Surg. 2016;2:106.

11. Klokkevold P. Oral Implantology. In: Carranza's Periodontology. 10th Edition. Newman MG, Takei HH, KlokkevoldPE, Carranza HA Editions. Chapters 73-81, 2006:1072-1190.

12. Touyz LZG, Lamontagne P, Mojon P. Diamonds and Cosmetic Dentistry. Restorative and Aesthetic Practice. 2004;6(4):10-17.

13. Touyz LZG. Body Piercing and Tattooing; the oral Implications. Clinical Dentistry UK, 2008:24-28.