

# Visagism, Attractiveness and Harmonization Complementing Orthodontics: Case Report

Erika Regina Stocco Di Francesco<sup>1</sup>, Erika Vanessa Zavalloni<sup>1</sup>, Rabbith Ive Carolina Shitsuka Risemberg<sup>2</sup>, Caleb Shitsuka<sup>3</sup> and Irineu Gregnanin Pedron<sup>4\*</sup>

<sup>1</sup>DDS, Private practice, São Paulo, Brazil

<sup>2</sup>Private practice, Los Angeles, CA, USA

<sup>3</sup>Professor, Department of Pediatric Dentistry and Cariology, Universidade Brasil, São Paulo, Brazil

<sup>4</sup>Professor, Bottoxindent Institute and Department of Periodontology, Implantology, Stomatology and Therapeutics, Universidade Brasil, São Paulo, Brazil

**\*Corresponding Author:** Irineu Gregnanin Pedron, Professor, Bottoxindent Institute and Department of Periodontology, Implantology, Stomatology and Therapeutics, Universidade Brasil, São Paulo, Brazil, Tel: +55 11 2944-4067

**Received:** February 04, 2022 **Published:** February 16, 2022

## Abstract

Orthodontics is a dental specialty whose objective is the search for the ideal occlusion from a functional and aesthetic perspective. Dental or peribuccal aesthetics can also favour facial aesthetics. By the ample analysis of the face and the oral cavity, concepts of Visagism can be used, which favours attractiveness of the people. Based on the concepts of Geometric Visagism, we particularize beauty according to the biotype of the patient, promoting harmonization of their physical body, facial and dentogingival characteristics, promoting attractiveness and favoring the perception of facial aesthetics even during the orthodontic treatment phase. The purpose of this article is to present the association of these concepts - Visagism, Attractiveness and Orofacial Harmonization - in a skeletal Angle Class II orthodontic patient who presented with excessive gummy smile.

**Keywords:** Botulinum Toxins type A; Orthodontics; Dental Aesthetic; Perception

## Introduction

Aesthetics is the science that deals with beauty in general and the feeling that is aroused in us. Aesthetics can be determined by contemplation and the perception of the human eye towards the object. From these characteristics, attractiveness is determined, a property in which it presents the ability to attract, and arouse interest from the visual impact. Particularly in relation to facial beauty, attractiveness is determined already in the first 2 seconds after viewing the face<sup>1</sup>. For human aesthetics, social, cultural, environmental and educational factors can influence attractiveness<sup>1,2</sup>.

Facial attractiveness is one of the fundamental factors for well-being, physical, psychological and emotional success, and subsequently social coexistence. Currently, the search for a beautiful, attractive and healthy smile is the main complaint of patients in dental clinics, in the most diverse specialties. From this perspective, Orthodontics plays an important role, as it deals with the physiological and aesthetic dysfunctions of tooth positioning. It is important that the dental surgeon has knowledge of the wishes, desires and preferences of patients for the most appropriate treatment<sup>2,3</sup>.

Based on the Greek concept, beauty is determined through harmony and proportion between the parts, as well as symmetry, measure and virtue. Since Ancient Greece, through the Renaissance, these concepts, which also refer to the golden ratio, are applied to the aesthetics<sup>1</sup>. In our contemporary times, these definitions are also applied to Orthodontics, in which the symmetry, for example, is presented not only in the aesthetics, but also in the function.

On the concept of what is beautiful and beauty standards, applies the Visagism, with the harmonization, balance and personalization of personal image. Appeared in France, the word visagisme was originated from the term visage, which means face. The original concept of Visagism is the art of creating a personalized personal image, expressing the personality and lifestyle, with harmony and aesthetics.

It was developed from 2003 by plastic artist Philip Hallawell, born in São Paulo, Brazil, with training in UK and US. Hallawell established the creation or adjustment of the personal image according to authentic people. This composition is done in two phases. In the first phase, the professional evaluates and decides with the patient which characteristic he wants to express through his image. In the second phase, the professional uses professional techniques, sensibility and mastery of the elements that make up the visual language to transform the personal image with harmony and aesthetics. In this way, a new therapeutic possibility arises applying visual intervention aligned with the contemporary trends of human behaviour, which seeks, in this century, individual expression. Personalisation is the guideline in this increasingly globalised market<sup>1</sup>. Thus, in Dentistry, Visagism was conceived as a tool to associate the will and the need of the patient through the conception of a smile, expressed visually by appropriate forms and lines<sup>1,3</sup>.

In our current society, facial beauty and attractiveness are related to social perception. Individuals with more attractive faces are generally perceived as displaying social and athletic leadership skills. Eyes and mouth are the primary physical features in determining facial beauty<sup>4,9</sup>. Smile is the means by which people demonstrate their emotions, joy, and friendliness, and can also influence how the individual is perceived, professionally or socially. It occupies the second place in facial attractiveness, positioned only behind the eyes. An attractive and balanced smile is the main objective of Orthodontics<sup>5</sup>. Facial beauty and harmony are the main characteristics that patients crave for, as they determine an important role on social perception and human behavior. Facial aesthetics has also contributed to the awareness and search of patients for orthodontic and orthognathic treatment, as well as other dental specialties<sup>6</sup>.

The purpose of this article is to present the association of these concepts - Visagism, Attractiveness and Orofacial Harmonization - in a skeletal Angle Class II orthodontic patient who presented with excessive gummy smile.

### Case Report

A Caucasian female patient, 32-years-old, came to the private clinic complaining of a gummy smile during orthodontic treatment. The patient reported being introverted due to excessive gummy smile, characteristic of the dolichofacial patient (Figures 1 and 2). Oral breathing was also reported, caused by lip incompetence and absence of passive lip seal. After active lip seal (requested from the patient), excessive contraction of the mentalis muscle was noted, observed in the extraoral facial photograph (Figure 3).



**Fig. 1:** Dolichofacial patient during orthodontic treatment presenting gummy smile.



**Fig. 2:** Orthodontic patient with gummy smile: approximate view.



**Fig. 3:** Excessive contraction of the mentalis muscle characterising lip incompetence and absence of passive lip seal.

The intraoral clinical examination revealed a disharmonious relationship between the shape of the upper anterior teeth (Figure 4) and the shape of the face (dolichofacial). The patient presented a skeletal Angle Class II malocclusion, under orthodontic treatment, confirmed by the initial lateral cephalometric radiograph (Figure 5). Satisfactory oral hygiene was observed, with no signs of inflammatory periodontal disease.

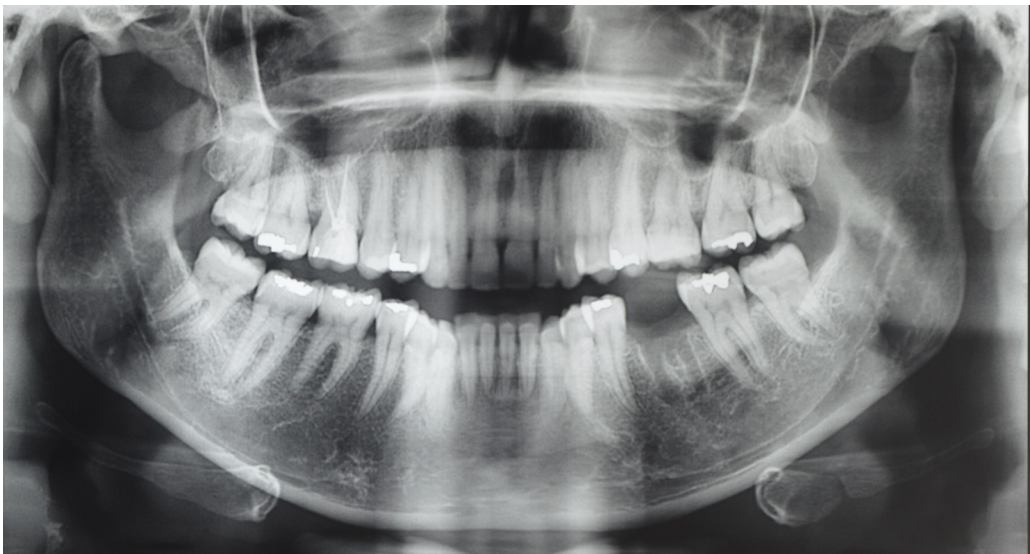
Regarding the radiographic characteristics, no significant oral alterations were observed (Figure 6).



**Fig. 4:** Disharmonious relationship between the shape of the upper anterior teeth and the shape of the face.



**Fig. 5:** Cephalometric radiograph showing skeletal Angle Class II malocclusion.



**Fig. 6:** Panoramic radiograph showing no significant oral alterations and periodontal disease.

Gingivoplasty and the application of botulinum toxin were recommended. Gingivoplasty was recommended to redefine the gingival arches, making them more harmonious and reducing the dentogingival discrepancy of the gummy smile. The application of botulinum toxin complements the treatment, achieving dehiscence of the upper lip. After all doubts were clarified, the patient agreed and signed the consent form for the procedures to be performed.

Under local anesthesia, gingivoplasty was performed using an electric scalpel. The length of the teeth was increased, determining the new dental zenith of teeth 11, 12, 13, 21, 22 and 23 (Figures 7 and 8). It was not necessary to use surgical cement, since the wound healing process occurs by second intention. Analgesic drugs were administered to the patient.

After 30 days, no complications or complaints were reported. Satisfactory wound healing was observed (Figure 9). As predicted, even with the increase in length of the upper anterior teeth, the gummy smile persisted and the complaint of the patient still remained (Figures 10 and 11).

At the same appointment, botulinum toxin type A (Botox™ 200 units, Allergan, Westport, Ireland) was applied. It was diluted in 2 ml of saline solution, according to the guidelines of the manufacturer. Two units were applied laterally to each nostril.

After 15 days, the patient was evaluated presenting uniform dehiscence of the upper lip (Figures 11 and 12). The complaint of the patient was eliminated and the self-esteem of the patient and sociability improved. No side effects or complaints were reported. The patient was instructed regarding the recurrence of gummy smile after 6 months of application.





**Fig. 7:** Gingivoplasty on teeth 21, 22 and 23.



**Fig. 8:** Immediate postoperative: gingivoplasty on teeth 11, 12, 13, 21, 22 and 23.



**Fig. 9** Postoperative evaluation (30 days): complete and satisfactory tissue repair.



**Fig. 10:** Persistence of the gummy smile.



**Fig. 11:** Persistence of the gummy smile: approximate view.



**Fig. 12:** Uniform dehiscence of the upper lip (after 15 days).



**Fig. 13:** Uniform dehiscence of the upper lip (after 15 days): approximate view.

## Discussion

Originally, Visagism addresses two aspects - the geometrical and the psychological. The geometrical Visagism determines that the balance of measures favours the harmonization according to their biotype. In psychological Visagism, the patient determines his/her physical aspect according to the image he/she wishes to transmit<sup>1</sup>. From our point of view, we recommend geometrical Visagism, in which the beauty of the patient is personalized according to his/her biotype. Dental therapies are used to camouflage imperfections, highlight qualities, balance and harmonize the oral cavity and face in a natural way. This conduct respects the particularity of each patient, does not contemplate standardization and favors facial attractiveness<sup>3</sup>.

The attractiveness and beauty of the face are quickly perceived within the first few seconds<sup>1</sup>. Even in patients with gummy smile, the face with balanced proportions is better tolerated. The application of botulinum toxin can attenuate the negative perception of gingival exposure<sup>3,7,10-12</sup>. The ideal smile is based on dental morphology, tooth coloration, and the proportional relationship between teeth, lips, and gingiva<sup>2-12</sup>.

There are also differences in male and female perceptions. While the male perception is attracted by the smile (49%) and the eyes (22%), the female perception is attracted by the smile (69%) and the skin (13%). In this same study conducted by Godinho et al.<sup>9</sup> (2020), it was also determined that the perception of attractiveness, intelligence, personality and behaviour are influenced by malocclusion. Also according to the study, individuals with normal occlusion are considered more intelligent, pleasant, attractive and outgoing.

Gummy smile<sup>3,5,8,10-12</sup> and the presence of diastemas<sup>2,5,7,8</sup> are considered less aesthetic and attractive factors. The coverage of the incisal edges of maxillary incisors by the upper lip has a negative influence on the attractiveness of the smile and face. From an orthodontic perspective, there is a preference for almost complete exposure of the upper central incisor crowns and minimal exposure of the lower incisors<sup>2</sup>.

The gummy smile is defined by gingival exposure greater than 3 mm during smiling<sup>3,6,10-12</sup>. In the present case, still during orthodontic treatment, gingivoplasty was performed with the purpose of increasing the dental zenith to promote harmonization between tooth length and face shape. Subsequently, botulinum toxin was applied to promote upper lip dehiscence. The application of botulinum toxin, besides esthetics, favored the mouth breathing reported by the patient, which was caused by lip incompetence and by the absence of passive lip seal. Additionally, the patient reported improved self-esteem, that can be observed by comparing Figures 1, 2, 10, 11, 12 and 13.

Gummy smile is observed more frequently in dolichofacial patients<sup>11,12</sup>, as observed in our patient. The mesofacial pattern is generally considered more attractive compared to dolichofacial and brachyfacial patterns<sup>4</sup>.

## Conclusion

The growing demand for orthodontic treatment has been increasing, besides the functional purpose (ideal occlusion), as well as dental and facial aesthetics. The gummy smile is considered one of the most pejorative characteristics in the negative perception of facial attractiveness. The attractiveness of facial beauty lies in balance. In this case, the ideal occlusion and proper dental alignment generated by orthodontic treatment, associated with gingivoplasty and the application of botulinum toxin, promoted the softening of facial lines and attenuation of the gummy smile. The improvement in self-reported perception increased attractiveness, enhancing the quality of life of the patient and well-being.

## References

1. Paolucci B. Visagismo - A arte de personalizar o desenho do sorriso. São Paulo: VM Cultural Edition, 2011:250
2. Tosun H, Kaya B. Effect of maxillary incisors, lower lip, and gingival display relationship on smile attractiveness. *Am J Orthod Dentofacial Orthop.* 2020;157(3):340-347.
3. Vale AS, Pedron I, Pedron TG, Shitsuka C, Pedron IG. Orthodontics, Visagism, Harmonization and Attractiveness: The Tetrad of the New Dentistry. *SAODS* 2020;3(10):05-10.
4. Batwa W. The influence of the smile on the perceived facial type esthetics. *Biomed Res Int.* 2018;3562916.
5. Malheiros AS, Brito AC, Gurgel JÁ, Bandeca MC, Borges AH, Hayashida TMD, Filho EMM, Tavares RRJ. Dentogingival alterations and their influence on facial and smile attractiveness. *J Contemp Dent Pract.* 2018;19(11):1322-1328.
6. Tjan AH, Miller GD, The JG. Some esthetic factors in a smile. *J Prosthet Dent.* 1984;51(1):24-28.
7. Lima APB, Conti ACCF, Filho LC, Cardoso MA, Almeida-Pedrin RR. Influence of facial pattern in smile attractiveness regarding gingival exposure assessed by dentists and laypersons. *Am J Orthod Dentofacial Orthop.* 2019;155(2):224-233.
8. Cracel-Nogueira F, Pinho T. Assessment of the perception of smile esthetics by laypersons, dental students and dental practitioners. *Int Orthod.* 2013;11(4):432-444.
9. Godinho J, Gonçalves RP, Jardim L. Contribution of facial components to the attractiveness of the smiling face in male and female patients: A cross-sectional correlation study. *Am J Orthod Dentofacial Orthop.* 2020;157(1):98-104.
10. Pedron IG. Toxina botulínica - Aplicações em Odontologia. Florianópolis: Ed. Ponto, 2016:195.
11. Araujo JP. Comment on "Botulinum toxin type-A as an alternative treatment for gummy smile: a case report". *Dermatol Online J.* 2019;25(6):13030.
12. Pedron IG. Botulinum toxin for a gummy smile. *Am J Orthod Dentofacial Orthop.* 2020;158(3).

**Citation:** Di Francesco ERS, Zavalloni EV, Risemberg RICS, Shitsuka C, Pedron IG. "Visagism, Attractiveness and Harmonization Complementing Orthodontics: Case Report". *SVOA Dentistry* 3:2 (2022) Pages 63-67.

**Copyright:** © 2022 All rights reserved by Pedron IG., et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.