

# TREATMENT OF GUMMY SMILE WITH BOTULINUM TOXINS – CLINICAL CASE

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**Introduction:** The gummy smile is the excessive exposure of the gingival when smiling, which usually exceeds 3mm. The etiological factor of this condition is key when treating it in consult. Vertical excess of the maxilla, short lip, altered passive eruption or hyperactivity of the upper lip muscles are some of the causes of the gummy smile. It is traditionally managed through certain surgical procedures. A non-invasive alternative to treat this condition, as long as the etiology is muscular hyperactivity, is the application of botulinum toxins.

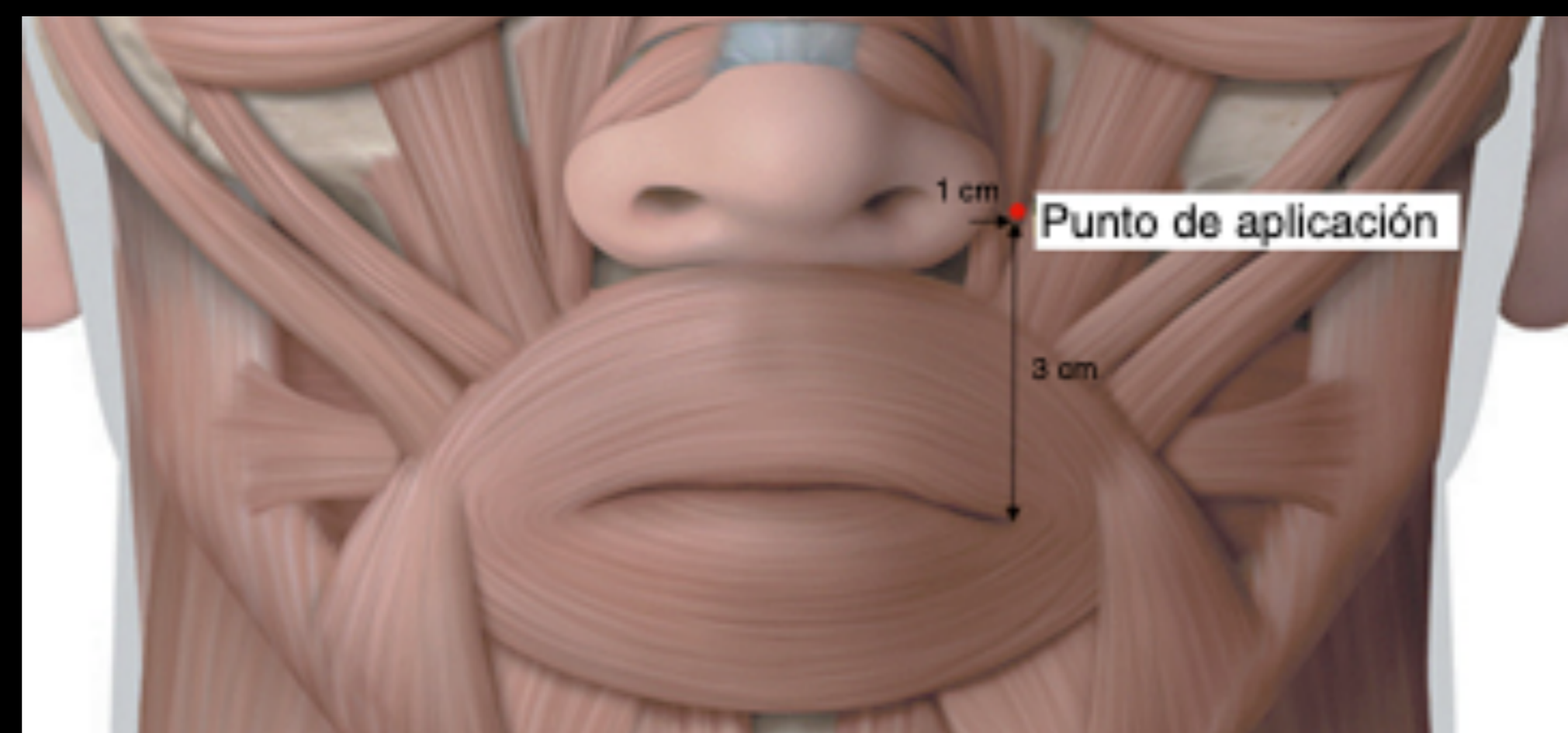
**Objective:** to present the use of botulinum toxins as an alternative when treating a gummy smile, accompanied by a clinical case.

## CLINICAL CASE:

A 27-year-old female patient comes to consult stating she dislikes her excessive gummy smile, and that her objective is to improve it for aesthetic purposes but avoiding invasive treatment to solve her gingival situation.

At the time of the clinical examination, it was observed that the patient had 4mm of gingival exposure, which for aesthetic standards did not favor facial harmony. An exhaustive anamnesis and clinical examination were performed to determine the etiology of the gingival exposure was due to hyperactivity of the elevator muscle of the upper lip.

All the different treatment options were discussed with the patient, including the use of Botulinum Toxins along with their advantages, disadvantages and limitations. This option was preferred by the patient. BTX-A from the brand "Allergan" of 100U was used diluted (under commercial instructions) in 2ml of 0.9% saline without preservatives and sterile to produce 5U per 0.1 ml. Using the Yonsei technique, the application points were located and 2.5U was administered in the elevator muscle of the upper lip bilaterally.



Yonsei Technique

The patient was monitored at 2 weeks, where she was satisfied with the results of gingival reduction. A second dose was not necessary for 6 months.



a.) Initial photo of the case showing the patients gingival excess.



b.) 2 week check up of patient after BTX-A application.

## Methodology:

Retrospective, analytical and descriptive review, based on selected literature.

- Inclusion and exclusion criteria:

- Inclusion:

- Comparative studies in English and Spanish

- Exclusion:

- Studies in different languages in English or Spanish  
- Studies without radiographic evaluation  
- Studies without scientific basis

- Keywords and search algorithm: Smile, gingival, toxins, botulinum, aesthetic

- Word combination: 1,2,3,4,5 - 1,2,3 - 1,2,3,4 - 1,2,3,5 - 1,2,4,5



**Results:** Authors and a clinical case agree that the treatment of the gummy smile with the use of botulinum toxins (if the etiology is muscular hyperactivity) is a good non-surgical alternative since it is minimally invasive and effective for the temporary treatment of said condition. Among the advantages of this treatment: its reversible, effective and one can obtain immediate results in office. All favorable for the patient when going to consult due to how antiesthetic the gummy smile may be in their case.



**Conclusions:** The perception of aesthetics in consultation should be managed with a clinical eye, determining its etiology to provide effective, non-invasive and satisfactory treatments for the patient. As is the botulinum toxin in the gummy smile due to muscle hyperactivity.

References: BiNunes L, Peixoto Ferrão Junior J, Feres Teixeira SA, Lobo Leandro LF, García Guevara HA. Tratamiento de la sonrisa gingival con la toxina botulínica tipo A: caso clínico [Internet]. 2015 [cited 2021Jan3]. Available from: <https://www.elsevier.es/es-revista-revista-espanola-cirugia-oral-maxilofacial-300-articulo-tratamiento-sonrisa-gingival-con-toxina-S113005581400032X?referer=buscador>

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