



Relationship between smile line and gingival biotype, tooth shape and gingival zenith of maxillary anterior teeth in Thai young adults.

Background

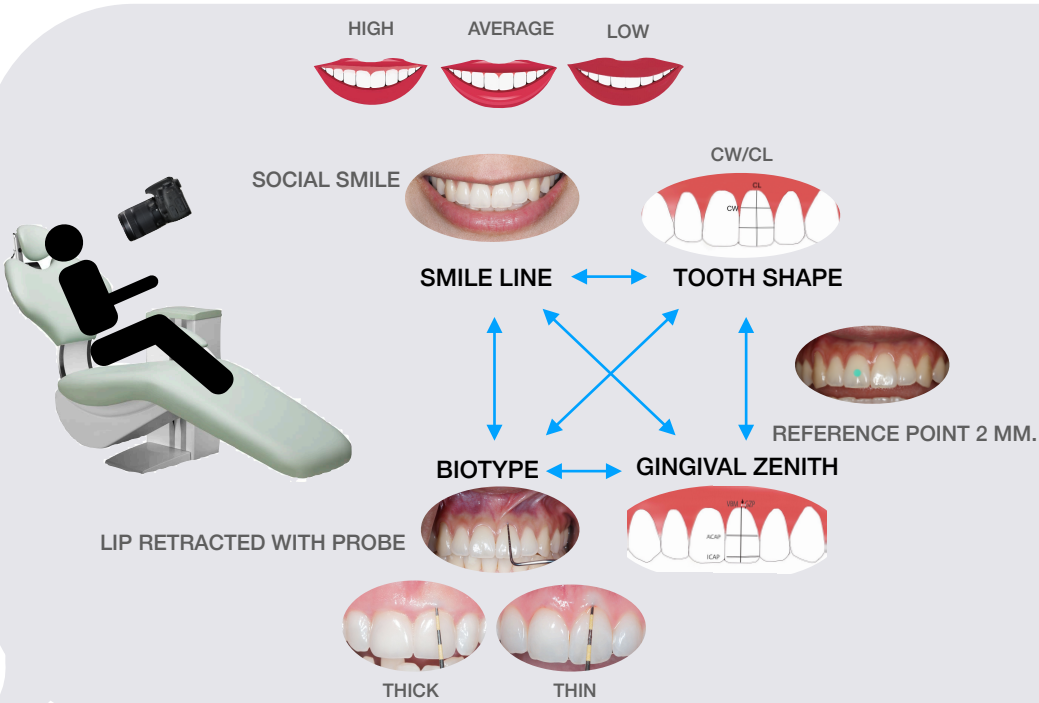


The smile plays an important role in facial esthetics, expression and appearance. The maxillary anterior teeth are a key esthetic component of a smile thus, the dental restorative treatment is necessary and need to be concerned. Shape of tooth, type of smile and gingival zenith of anterior teeth are the main things for dentists to concern with.

Objective



To evaluate the relation between smile line and gingival biotype, smile line and tooth shape, smile line and gingival zenith, tooth shape and gingival zenith, tooth shape and gingival biotype and gingival biotype and gingival zenith in Thai young adults.



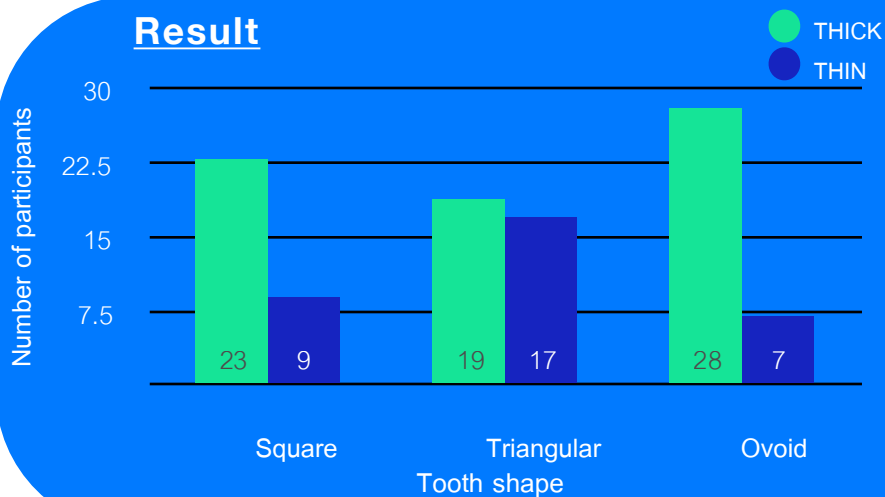
Materials and methods

One hundred and three Thai young adults; 43 males and 60 females, aged between 20 to 35years old participated in this study. Two photographs were taken from each volunteers, including maximum smile and lip retracted without periodontal probe for data collecting of gingival zenith and tooth shape with 2-mm diameter reference dot. The classification of gingival biotype was performed after the lip retracted without periodontal probes.

Data analysis

- Using the SPSS version 22.0 (SPSS: Chicago, IL) to analyze the relationship.
- 103 sample size
- Thai young adults population ranging from 18 to 39 years old.
- Chi-square test was used to find the relationship

Result



There were no statistical evidence that smile line were related to tooth shape, gingival biotype and gingival zenith. Tooth shape and gingival biotype had statistically significant ($p < 0.05$). Ovoid tooth shape has tendency to relate with thick gingival biotypes, while triangular tooth shape shown the relation to their gingival biotype. On the other hand, the statistical results showed that square tooth shape did not relate with gingival biotype. Nevertheless, there were no statistical relationship of the others variables which were tooth shape and gingival biotype, gingival biotype and gingival zenith.

Conclusion

In our study, gingival biotype was related with tooth shape. It seems that ovoid tooth shape related with thick gingival biotype; whereas, triangular tooth shape related with thin gingival biotype. On the other hand, the statistical results showed that square tooth shape did not relate with gingival biotype.

Thus, gingival biotype and tooth shape should include to be a factor to evaluate before treatment planning at aesthetic area especially in high smile line. In addition, other factor can be related and considered is gender which is interest point to study in the future.



KEY WORD : GINGIVAL BIOTYPE, GINGIVAL ZENITH, SMILE LINE, TOOTH SHAPE

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