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## Correlation of Esthetic Factors: A Computerised Clinical Study

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### ABSTRACT:

**Statement of Problem:** The selection of maxillary anterior teeth for complete dentures has long posed a problem in clinical practice and a controversy about the best method still exists.

**Aims and Objectives:** To evaluate the correlation between tooth, face arch forms and palatal contour using a computer programme and to assess whether anterior tooth forms would reflect gender.

**Material and Methods:** Photographic records including full face, dental arch and anterior tooth images of the dental cast of 50 dentate subjects were made by use of digital photography. A questionnaire was given to ten prosthodontists who were asked to identify the gender by examining stored images of the subjects. Kappa statistics was used to measure inter-observer agreement. Full face and dental arch photographs were acquired and accurate superimposition of outline tracings was done with adobe photoshop image editing software.

**Results:** Prosthodontists were successful in distinguishing the actual sex by the visual assessment of anterior tooth segment alone with a fair agreement between the prosthodontists evaluation. Highest correlation occurred between tooth to face forms (56.4%), followed by arch to face form (49.2%) and arch to tooth form (47.8%). These results reveal that prosthodontists were in fair agreement in categorizing the tooth form.

**Conclusions:** The results of present study showed a correlation between tooth, face, arch forms and palatal contour. The visual assessment of anterior tooth segment alone would give a fairly agreeable gender identification of the subjects.

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