

GENDER RELATED TOOTH COLOR DIFFERENCES IN MAXILLARY CENTRAL INCISORS EVALUATED WITH SPECTROPHOTOMETER



Ass. Julija Zarkova Atanasova,

Ass. Prof. Katerina Zlatanovska, Prof. D-r Lidija Popovska,

Prof. D-r Vesna Korunovska-Stefkowska, Prof. D-r Ivona Kovacevska

Aim:

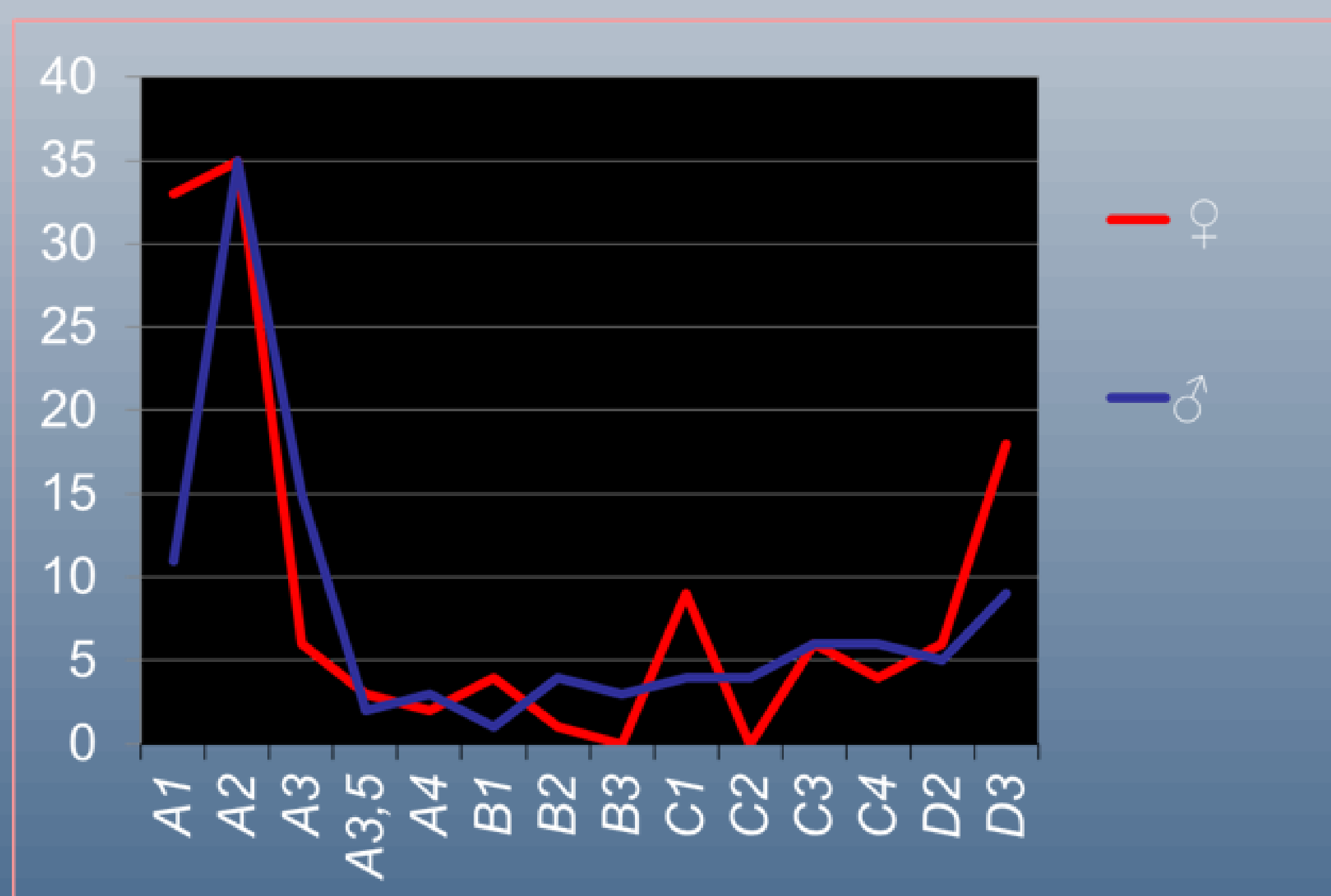
To find the tooth color difference between genders evaluated with spectrophotometric measurements of maxillary central incisors and to see the gender influence on color distribution according three shade guides

Material and method :

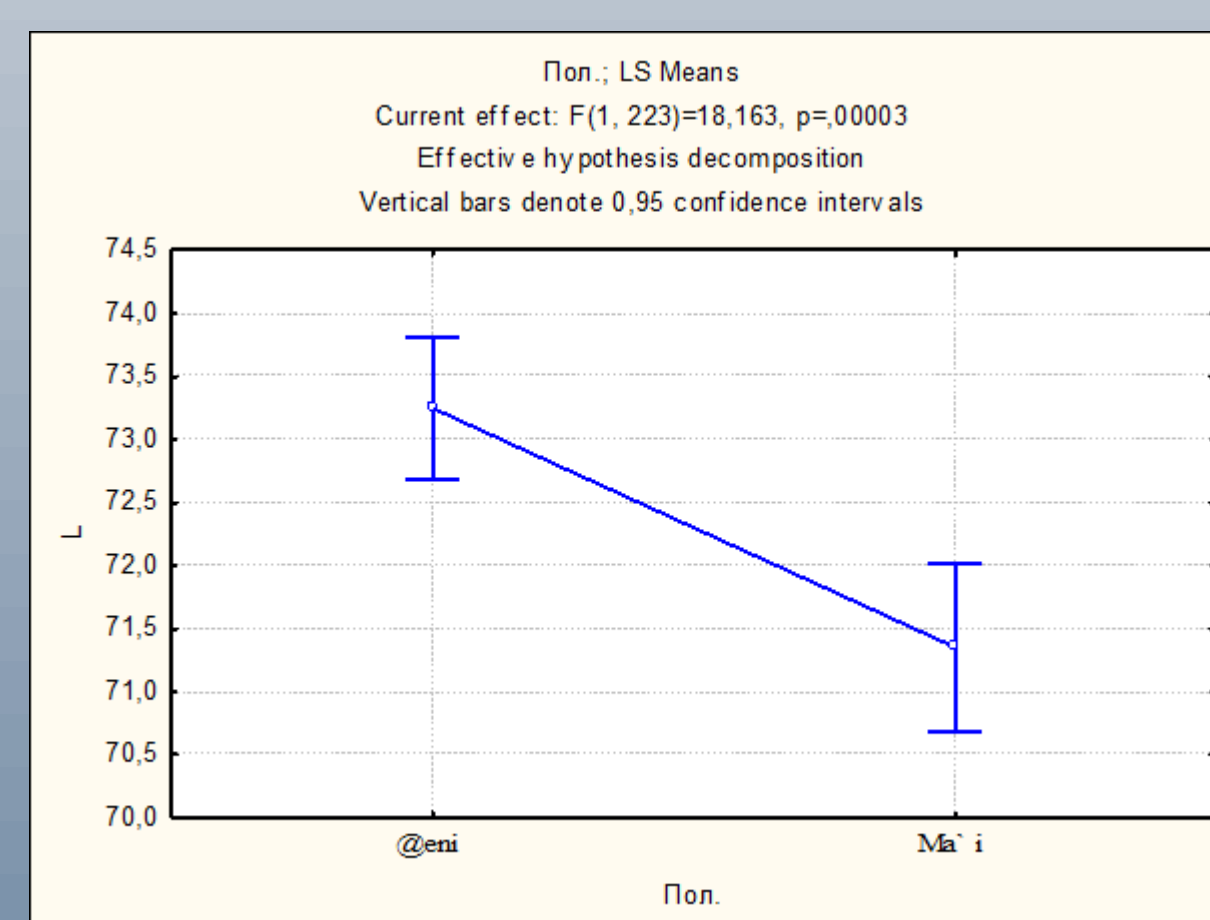
The color was measured with spectrophotometer ShadePilotTM (Degu Dent, Germany) in patients age 18-69, 135 were female and 115 male.. In order to reveal the tooth color distribution the best color match in the middle crown third was selected according to three shade guides Vita Classical, Ivoclar Chromascop, Vita 3D Master. Tooth color parameters were analyzed in the CIE Lab system. Statistical test that were used were Pearson Chi-square и ANOVA/MANOVA Factorial Anova (F).

Results:

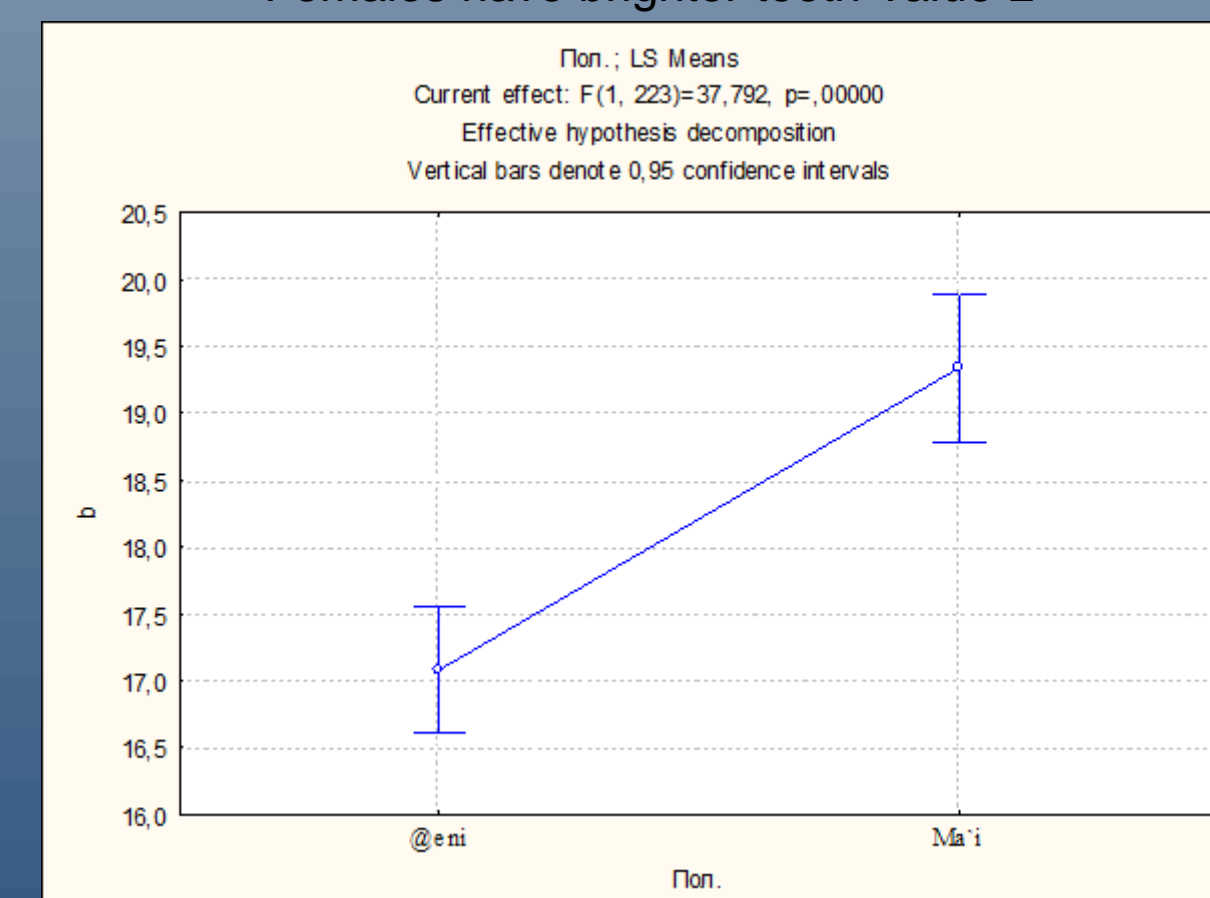
Shade distribution between males and females is statistically significant according to all shade guides Vita Classical $p < 0,01$ ($p = 0,005$), in Ivoclar Chromascop $p < 0,001$ ($p = 0,000$) and Vita 3D Master $p < 0,001$ ($p = 0,000$). There is a significant difference in lightness L^* ($F = 18,2$ $p < 0,001$ ($p = 0,000$)). Women tend to have higher value of parameter L^* for 1,4 Delta L units higher then man. The parameter b^* also is statistically different between genders ($F = 37,79$ $p < 0,001$ ($p = 0,000$)), men have higher values then women for 1,8 Delta b^* units.



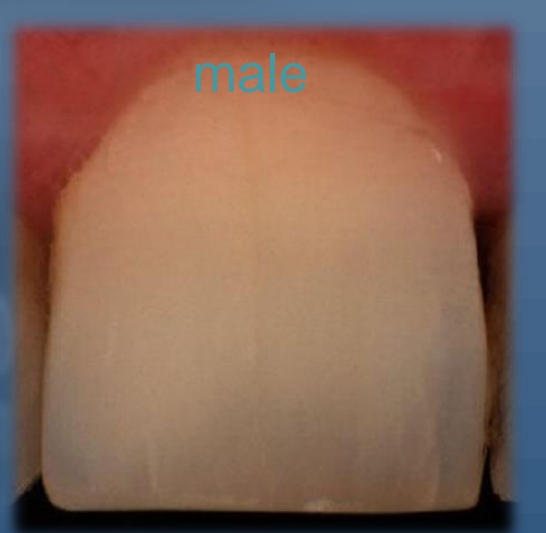
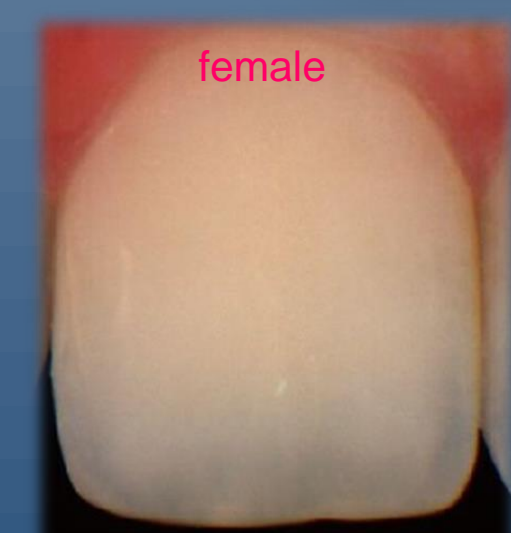
Pearson Chi-square = 29,93, $p < 0,01$ ($p = 0,005$)



Females have brighter teeth Value L



Females have less yellow teeth according b^* coordinates



Conclusions :

1. Gender is very important factor for tooth shade determination.
2. Males have darker and more yellow teeth then females according to the system L^*ab