ABSTRACT

The mesiodistal width of the six maxillary anterior teeth is important in the making of dentures for aesthetic function. Measuring the width of the maxillary anterior teeth of edentulous patients without pre-extraction records is difficult. One method that used to determine the mesiodistal width of six maxillary anterior teeth is the measurement of the head circumference divided by 10. The purpose of this study was to examine a correlation between the circumference of the head and the mesiodistal width of the six maxillary anterior teeth in the Javanese population.

The study was conducted on 32 Javanese subjects aged 18-25 years old, Angle class I malocclusion, complete maxillary anterior permanent teeth, not using dentures or crowns on the anterior maxillary teeth, not currently in orthodontic treatment, no dentocraniofacial abnormalities, and having symmetrical head shape. The mesiodistal width of the six maxillary anterior teeth was measured by dental floss from the distal left canine to the distal right canine and made marks on the distal surface of both the canines. The distance of the two points on the dental floss was measured using a digital vernier caliper with a precision of 0.01 mm. The circumference of the head was taken from above the eyebrows, through the glabella to the occipital bone area using a nonstretchable plastic tape. Each measurement was carried out three times. This study was analyzed by Pearson product moment for correlation.

The results of this study showed that there was a strong and positive correlation (r= 0.614 and p <0.05) between the mesiodistal width of the six maxillary anterior teeth and the circumference of the head. The conclusion is that there is a strong and positive correlation between the circumference of the head and the mesiodistal width of the six maxillary anterior teeth in the Javanese population.

Keywords: mesiodistal, anterior teeth, head circumference, Javanese