

THE SIGNIFICANCE OF INNER CANTHAL DISTANCE IN PROSTHODONTICS

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فوائد قياس مسافة ما بين العينين في صناعات التركيبات التعويضية

لقد اقترح مؤخراً استخدام علم مقاسات الوجه للمساعدة في اختيار حجم الأسنان وخاصة الأسنان العلوية الستة الأمامية خلال عملية تصنيع التركيبات التعويضية للفم الأود.
إن قياس المسافة مقاسات ما بين العينين الداخلية هي من الاعتبارات الأساسية التي تشكل هيئة الوجه والتي لم يتم بحث فوائدها أو التفرير عن استخدامها في تصنيع التركيبات التعويضية لحد الآن أن المسافة ما بين العينين هي المسافة بين الزوايا الداخلية لشقي جفني العينين.
تدرس هذه الورقة علاقة مسافة ما بين العينين وعرض جناح الأنف وعلاقتها بحجم الأسنان العلوية الستة الأمامية وهذه الدراسة أجريت على 310 مرضى.
وقد أوضحت النتائج أن هناك علاقة مباشرة بين مسافة موق العينين وعرض الأسنان العلوية الستة الأمامية ويمكن تقديرها على أن عرض الأسنان الستة الأمامية تساوي 1,35 من المسافة بين موق العينين.

Abstract

Several anthropometric facial measurements have been suggested to aid in the estimation of the overall width of the maxillary six anterior teeth for edentulous patients. However, the inner canthal distance, which is an important anthropometric parameter, has not been investigated or reported. The inner canthal distance is the distance between the medial angles of the palpebral fissures. The relationship amongst the inner canthal distance, inter-alar width and the combined width of the maxillary anterior teeth of 310 subjects was investigated. The results indicated that the combined width of maxillary six anterior teeth may be estimated by multiplying the inner canthal distance by a factor of 1.35.

Introduction

In the construction of complete dentures, the estimation of the combined width of maxillary six anterior teeth is an important clinical procedure when pre-extraction records are not available. Several facial measurements, including bizygomatic width, inter-commissural width, inter-pupillary width and inter-alar width have been suggested to aid in the estimation of an overall width of the maxillary six anterior teeth.¹⁻⁴ However, there seem to be conflicting views on the value of such estimations.

Hoffmann et al³ noted that the combined width of the maxillary six anterior teeth may be established through the use of inter-alar width. They suggested that inter-alar width may be multiplied by a factor of 1.31 to obtain the combined width of the maxillary six anterior teeth. Still

another anthropometric measurement of the face is the distance between the inner canthus of the eyes. The inner canthus is a point at the medial angle of the palpebral fissure [Fig.1], with the inner canthal distance defined as the distance between the medial angles of the palpebral fissures.⁵ Laestadius et al⁶ reported that, in 78% of adults, the inner canthal distance is attained by one year of age, after which the rate of growth in the area is slow in contrast to the outer orbital dimension. In the estimation of the combined width of the maxillary six anterior teeth, the value of this anthropometric parameter has not been investigated or reported in the literature.

The purpose of this study was to determine the relationship of the inner canthal distance with interalar width and the combined width of the maxillary six anterior teeth.

Materials and Methods

Three hundred and ten subjects comprising 164 (52.9%) males and 146 (47.1%) females were studied. Their age ranged from 17 to 57 years with a mean of 37 (+ 13.0) years. Only subjects who were free of congenital facial defects, interdental spacing or

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