

## 锥形束 CT 对微螺钉前牙根间植入区骨量的分析

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**【摘要】目的** 通过对微螺钉种植支抗前牙根间植入区骨量进行三维测量分析, 为前牙根间植入位点的选择提供参考。**方法** 对 36 名成人患者的上、下颌前牙区行锥形束 CT 扫描及三维重建, 分别测量 U/L11 (上/下颌中切牙根间), U/L12 (上/下颌中切牙和相邻侧切牙根间), U/L23 (上/下颌侧切牙和相邻尖牙根间) 距上、下前牙釉牙骨质界 3 mm、5 mm、7 mm 及 9 mm 水平的根间距 (D1) 和牙槽骨宽度 (D2)。采用 SPSS 17.0 软件进行单因素方差分析和 Duncan 法进行两两比较。**结果** 相邻两牙根间最小距离 D1: 从大到小依次为 U11>U23>L23>L11>U12>L12, 所有牙位越往根尖方向 D1 越大, 其中只有 U11, U23 分别距离釉牙骨质界 5 mm 和 7 mm 根间距大于 3 mm, 相邻两牙根间唇舌向牙槽骨宽度 D2 为: U11>L11, U12>L12, L23>U23, 不同水平 D2 值在 3.82~6.62 mm 之间。**结论** 上、下颌前牙区, 上颌中切牙之间及上颌侧切牙和尖牙之间的根间区是植入微种植体较理想的部位。

**【关键词】** 微螺钉 锥形束 CT 前牙 根间距 牙槽骨宽度

DOI: 10.11752/j.kqcl.2016.04.06

## Quantitative analysis of bone mass in the anterior interradicular bone area for micro-implant placement with cone beam CT

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**【Abstract】Objective** The purpose of this study was to measure the bone mass of interradicular bone area between two adjacent anterior teeth by three dimensional measurement analysis, and to provide guidelines for implant placement sites in the anterior tooth area. **Methods** Cone-beam computed tomography was used in 36 patients to measure the horizontal interradicular distance (D1) and buccolingual width (D2) of alveolar bone which were respectively at 3 mm, 5 mm, 7 mm, 9 mm below the cement-enamel junction (CEJ) of U/L11, U/L12, U/L23. U/L11 means the interradicular area between adjacent upper/lower incisors; U/L12 means the interradicular area between adjacent upper/lower incisors and lateral incisors; U/L23 means the interradicular area between adjacent upper/lower lateral incisors and canines. The data were analyzed by one-factor analysis of variance (ANOVA) and Duncan method by using SPSS 17 software. **Results** The interradicular distance D1 became wider toward the apical area following the order: U11 > U23 > L23 > L11 > U12 > L12. The values of D<sub>1</sub> were more than 3 mm at the sites of 5 mm and 7 mm below the CEJ of U11 and U23. The relationships of buccolingual width (D<sub>2</sub>) between different anterior adjacent interradicular area were U11>L11, U12>L12, L23>U23, and the values of D2 were between 3.82 mm and 6.82 mm. **Conclusions** The recommended safe zones of interradicular spaces for the anterior teeth area are interradicular areas between upper incisors and between upper lateral incisor and canine.

**【Key words】** Micro-implant CBCT Anterior teeth Interradicular distance Alveolar bone width