

A simple clinical method of constructing a mini- implant guide

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Abstract: According to the present scenario in orthodontics, mini- implants have become a boon for anchorage due to various reasons such as easy insertion and retrieval, inconspicuous and highly patient compliant. The site of placement of the mini-implant is of prime concern especially when the site is in between teeth for, it may have a risk of injury of root of teeth. Hence, it is of utmost importance to select the site by clinical and radiographic evaluation. Numerous techniques have been introduced to ease the placement of the mini-implant but they require lot of time for guide fabrication or faulty radiographic interpretation. This Article shows a new mini-implant placement guide which is less time consuming, fabrication friendly, reliable and more accurate for the insertion of implant.

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I. Introduction

The popularity of Orthodontic mini-implants(MI) has spread wide mainly due to their high efficiency in cases with high anchorage needs. Although there have been several factors affecting the longevity of the implants which needs to be taken into account before their insertion.¹

For the stability of the MI the accuracy of the placement is of high importance. There are a number of factors that the stability depends on² Improper Angulation, Closeness to the root surface, are the major reasons for mini-implant failure³ Peri-implantitis occurs along with the failure of the MI when placed in the alveolar mucosa.

Several techniques have been employed to allow the placement of mini-implants in a safe way. Metallic markers⁴ and brass wires⁵ are convenient to place but have been inconsistent in the radiographic interpretations, hence they have reduced accuracy.

In this article, a new guide for the placement of mini-implant is further described as easy to fabricate, convenient to adapt and accurate clinically and radiographically.

II. Design And Steps In Fabrication

An 0.016" SS Australian wire is bent such that a helix of 2.5mm in diameter is formed with both the ends bending in a v-fashion vertically up with a horizontal bend such that this end can be engaged into the brackets or molar tubes and secured firmly with elastomeric or steel ligation.

III. Clinical Procedure

The mini-implant guide is placed in the position of the mini implant placement. It is further secured with ligation. An orthopantomogram is obtained to confirm the clinical and radiological findings, further refinement of the position is done in correlation to the radiograph. The mini-implant is then placed with the guide in position. The mini-implant is then removed and another radiograph is taken to ascertain the placement.

IV. Conclusion

This guide can be used for the accurate positioning of the implant site. Owing to its flexible design this guide can be placed easily in any interradicular space. The size of the guide helps in better accuracy of mini implant placement. The implant guide presented in this article is easy to fabricate, less time-consuming, accurate and more reliable for implant insertion.

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