A Simplified Lingual Bracket Positioner

Sharath Kumar Shetty, Mahesh Kumar Yethadka, Anshul Srivastava

ABSTRACT

The indirect bonding system for lingual brackets may be broadly classified as: techniques using setup models and those using diagnostic models. The techniques using setup models are more accurate and many of them require the use of lingual bracket positioners for determining the correct position of brackets. We have devised a simpler yet reliable and effective bracket positioner ‘Lingual Bracket Positioner’ in our department. Although many variants are available commercially, this design is easy to fabricate, cheap and ready to use.

Keywords: Lingual, Bracket positioner, Indirect bonding.

INTRODUCTION

Kyung et al devised mushroom bracket positioner for three dimensional accuracy during bracket placement.1,2 We have devised a simpler form of bracket positioner using fluid level indicators.

PROCEDURES FOR FABRICATION

A rectangular wire of dimension 0.021” × 0.025” and length 6.5 cm was soldered at the center of another wire of same length and similar dimensions at right angle (Fig. 1). Two fluid level indicators were attached at the center of these wires with the help of adhesive media at right angle to each other. The fluid level indicator is a commercially available device used by masons and carpenters for determining a horizontal level. These fluid level indicators carry an air bubble within a pool of liquid. The center position of this air bubble indicates the horizontal level of the fluid level indicator in both transverse and anteroposterior planes (Figs 2 and 3).

1Head, 2Professor, 3Postgraduate Student
1-3Department of Orthodontics, KVG Dental College, Sullia Karnataka, India

Corresponding Author: Anshul Srivastava, Postgraduate Student, Department of Orthodontics, KVG Dental College Sullia, Karnataka, India, Phone: 01722585103, e-mail: anshulsri852005@gmail.com
This appliance is then soldered onto the distal most ends of the 0.017” × 0.025” stainless steel mushroom shaped lingual archform fabricated on customized lingual set-up (Figs 4 and 5).

Lingual STB brackets (Dentos, India) with 0.018” interior slots and 0.022” posterior slots were then attached with the help of modules on to this appliance. Firstly, only six anterior brackets from right canine to left canine were attached. This was then positioned onto the set up model and horizontal levels were determined. A light cure composite (3M Unitek) was applied on the mesh of these anterior brackets and the predetermined position was repeated. The brackets were bonded on to the cast and the positioner was separated from it (Fig. 6).

Similarly, the procedure was repeated for posterior brackets and individual hard transfer trays were made using rigid silicone material.

The two fluid level indicators help in maintaining the parallelism of the wire and the brackets transversely and anteroposteriorly. They have been used to maintain a horizontal level in two planes.

Hence, this innovation aids in accurate lingual bracket positioning. It is easy to fabricate, rigid, economical and useful appliance for day to day lingual laboratory set-up.

REFERENCES
