Rapid separation for simplified enamel reduction – Smart way to work

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Abstract

The effort and time needed for proximal reduction makes it a tedious job for an orthodontist. Patient discomfort and gingival injuries are also reported high during interproximal slenderization. This innovative technique uses an elliot’s separator during orthodontic tooth reduction which overcomes all these disadvantages apart from giving opportunity to preferentially reduce one tooth over other.

Keywords

Airotor reduction, Elliot’s tooth separator, interproximal reduction, rapid separation

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Interproximal reduction is one of the methods of gaining space during orthodontic treatment.[1,2] This process needs great effort and consumes time of the operator when tooth contacts are tight. There are instances when tight contacts caused slippage of the proximal strip, injuring adjacent soft tissues. This technique also strains muscles of the operator. Tooth separation before interproximal reduction is beneficial for better access of abrasive discs or strips into the interdental area and also helps in preferential reduction of a particular tooth over the other.[3] Routine use of elastic modules or brass wires causes slow separation requiring at least 2 days of time. Other disadvantages with these methods are elastic modules accumulate plaque and debris whereas brass wires are frequently injurious to adjacent tissues.

We have developed a new innovative technique which assists in instant tooth separation before interproximal reduction of enamel. Elliot’s tooth separator[4] is a well-accepted method for quick separation of adjacent teeth for polishing proximal restorations in restorative dentistry. The same can be applied in orthodontics to create space within the confines of periodontal ligament space, and this is not injurious to tooth [Figure 1].

This new method of separation is easy to use, atraumatic and can be universally applied to all quadrants. Judicious use helps in precise reduction of teeth, preventing slippage, and iatrogenic injury to gingiva. This saves operator time and improves patient comfort.

References


Figure 1: (a) Elliot’s tooth separator, (b) placing separator interdentally, (c) before separation, (d) after separation