New Essix Retainer for Both Retention and Habit Control

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ABSTRACT

Many methods have been used to correct abnormal tongue habits. A mechanical device, such as tongue spurs or cribs offers help till they are in the mouth, but the habit often returns when the device is removed. Patients with a tongue thrusting habit complain to their clinicians, of spaces reopening, proclination of anteriors and contraction of the arch, though the clinician initially successfully treated the case.

Keywords: Essix retainer, Habits, Tongue thrusting, Tongue cribs.

INTRODUCTION

Ideally, oral habits must be eliminated, preferably before establishing mechanotherapy. Many malocclusions are contributed by imbalance of the neuromuscular system which may include habit. Although the role of tongue thrusting in the etiology of malocclusion is still controversial, persistence of such harmful habits, such as tongue interposition or thumb sucking are thought to contribute to the relapse of the orthodontic treatment.

If a patient has a forward resting position of tongue, the duration of this pressure, even if very light, could affect tooth position, vertically or horizontally. So, tongue thrusting plays a significant role in the etiology of many orofacial deformities. Possibility of tongue thrusting recurrence is very high after the removal of the tongue cribs, which are prescribed all along the orthodontic treatment.

Numerous types of retainers are used for retention purpose, but these appliances maintain only the corrected position of teeth. They do not incorporate any component to prevent persistence of previously corrected habit during the orthodontic treatment.

This new unique design of the essix retainer appliance we developed (Figs 1A to G), will help in maintenance of the expanded arch width as well as act as a habit breaking appliance during the retention phase.

Fabrication

1. Make two U shape wires of 032” stainless steel, one with cribs and another one without cribs.
2. U-shaped wire without the crib is adapted over the cast and stabilized with plaster in anterior and posterior region.
3. Essix retainer is made on the cast.
4. Additional wire with cribs is placed over the essix retainer and marked the position of spikes on the retainer.
5. Hole is made in the retainer through the marking.
6. Stabilized the additional wire in the essix retainer with composite or acrylic.
7. New essix retainer with tongue cribs is ready for the delivery to patient (Figs 1A to G).

A 25 years old female patient was presented with chief complaint of proclined upper incisors with spacing (Fig. 2). On examination, she revealed severe tongue thrust habit. Treatment started with (0.022 × 0.028)-inch MBT 0.022 preadjusted edgewise appliance, with a nonextraction approach. A fixed tongue crib was given as a habit breaking appliance to prevent the tongue thrust habit during the treatment (Fig. 3).

Cessation of the tongue thrusting habit before retraction of anterior teeth may also help in space closure by preventing the abnormal forces from the tongue. After successful completion of treatment, long-term retention was planned as these cases may relapse due to recurrence to tongue thrust habit. After completion of treatment, a new modified essix retainer was planned for the patient (Fig. 4). On follow-up visits patient reported no discomfort and demonstrated excellent compliance with the retainer (Fig. 5).

Advantages

1. Rigid stainless steel wire incorporated in the design provides the transverse stability across the arch.
2. Tongue cribs prevent the patient from practicing tongue thrusting and thumb sucking habit, thereby minimizing the chances of relapse.
3. As this appliance is esthetic patient can wear it during the day time.

CONCLUSION

This new unique modification of design of the essix retainer will help in maintaining the corrected position of teeth and also prevent the recurrence of a habit. Thus, the appliance
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reduces the orthodontist’s work after successful completion of orthodontic therapy.

REFERENCES