

Short Communication

Fibre glass splint retainer with tongue-thrusting spikes

ABSTRACT

Tongue-thrusting is one of the most common habits seen in orthodontics. Complete elimination of the habit to prevent relapse is one of the challenges. Correction of tongue-thrusting habit is quite difficult, more so if the habit is ingrained. Here, we are introducing a retainer made of fiber glass with spikes for tongue-thrusting habit control incorporated in it.

Key words: A.J. Wilcock wire; retention; splint.

Introduction

One of the primary causes of relapse is inherent instable position of the teeth due to tissue pressure from tongue, cheeks, and lips.^[1] At times, it is very difficult to eliminate the causative underlying habits such as tongue-thrusting or thumb sucking habit. In the presence of these habits, relapse is inevitable. Various methods of retention in common use do not try to control or eliminate the pressure habits. Within the removable retainer, the patient co-operation is mandatory and rotational relapse is seen commonly.

Splinting of teeth is highly used as a retention method in orthodontics^[2,3] and even after trauma.^[4] Bonded canine-to-canine retainers are used most commonly in the lower arch. Keeping these factors in mind a fiber glass splint incorporating tongue-thrusting spikes was designed and used as a retainer for tongue-thrusting case. The splint was bonded palatally/lingually to the incisors and canines.

Fabrication and method of application

The glass fibers used were industrial glass fibers five thousand thick and precoated with tetra ethoxy siloxane [Figure 1]. The spikes had a base of a circle of approximately 1 mm diameter and the spikes protruded out of the splint by approximately 2 mm [Figure 2]. On the plaster models lingual splint with fiber glass were fabricated incorporating 0.014" SS

A.J. Wilcock wire spikes with base. The ends of the spikes were carefully rounded during finishing avoiding trauma to the patient. This way the splint acts as a reminder and not as a deterrent for the habit correction.

The splints were made using light curing composite. After curing the composite, the splint were removed and stored in water for 12 h, then cleaned and finished. The bonding surface was sandblasted. The teeth were prepared for bonding on the lingual surface as per the protocol and splints were bonded above. The splint serves as a retainer as well as a reminder for control of the tongue-thrusting habit [Figure 3]. The splints are to be kept till the tongue thrust habit is in control. Generally 6 months to 1 year.

Discussion

Using fiber glass as a splint has been used since ages. It is one of the commonly used materials in periodontally

**SHRIKANT SHRINIVAS CHITKO,
UDITA HASMUKH MEHTA, NEERAJ SURESH PATIL,
VEERENDRA V KERUDI, HARSHAL ASHOK PATIL¹**

Department of Orthodontics, ACPM Dental College, Dhule,
¹Private Orthodontic Practice, Jalgaon, Maharashtra, India

Address for correspondence: Dr. Harshal Ashok Patil,
Private Orthodontic Practice, Jalgaon, Maharashtra, India.
E-mail: drharshalortho@gmail.com

Access this article online

Website:

www.orthodrehab.org

DOI:

10.4103/2349-5243.200220

Quick Response Code



This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

How to cite this article: Chitko SS, Mehta UH, Patil NS, Kerudi VV, Patil HA. Fibre glass splint retainer with tongue-thrusting spikes. *Int J Orthod Rehabil* 2017;8:38-9.



Figure 1: Glass fiber

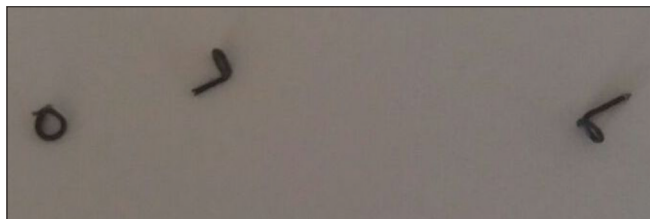


Figure 2: 0.014" SS A.J. Wilcock wire spikes with base



Figure 3: Fiber glass splint retainer with tongue-thrusting spikes

compromised cases as a splint. In direct splinting technique, these strips are regularly used.^[5,6] These strips are highly esthetic and easy to use. These strips can be used as a retainer after orthodontic treatment and palatal spikes can be incorporated into it which is a useful method for controlling tongue-thrusting habit.

Conclusion

Fiber glass splint retainer with tongue-thrusting spikes technique is economical, effective, and very useful method for controlling of tongue-thrusting habit along with fixed retention.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Proffit WR, Fields HW Jr., Sarver DM. Contemporary Orthodontics. St. Louis: C.V. Mosby; 2007. p. 617.
2. Saravanamuttu R. Post-orthodontic splinting of periodontally-involved teeth. *Br J Orthod* 1990;17:29-32.
3. Karaman AI, Kir N, Belli S. Four applications of reinforced polyethylene fiber material in orthodontic practice. *Am J Orthod Dentofacial Orthop* 2002;121:650-4.
4. Andreasen JO. Buonocore memorial lecture. Adhesive dentistry applied to the treatment of traumatic dental injuries. *Oper Dent* 2001;26:328-35.
5. Strassler HE, Haeri A, Gultz JP. New-generation bonded reinforcing materials for anterior periodontal tooth stabilization and splinting. *Dent Clin North Am* 1999;43:105-26.
6. Rudo DN, Karbhari VM. Physical behaviors of fiber reinforcement as applied to tooth stabilization. *Dent Clin North Am* 1999;43:7-35.