Clinical Pearl

Simplified Method for Fabrication of "Universal Economic Crimpable Shims" (UECS)

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ABSTRACT

For correction of Class II malocclusion many Class II corrector appliances are available in the market. Fixed functional appliances like Powerscope and Advanced sync have requirement of shims for further activation of these appliances. Sometime all available shims (provided with appliance) are used or some shims are lost but still activation is required. In this scenario we have to order new shims, which are costly and time consuming. Fabricated UECS surpasses these difficulties and can be used for further activation of these fixed functional appliances.

Keywords: Class II corrector, Fixed functional appliance, Universal Economic Crimpable Shims, Powerscope.

INTRODUCTION

Class II malocclusion is primarily due tomandibular retrognathism, maxillary prognathism or both. Mandibular retrognathism is common as compare to maxillary prognathism[1]. Removable and fixed functional appliances are the treatment of choice in early and late growing stages respectively. Fixed functional appliance such as Herbst, Jasper jumper, Mandibular Anterior RepositioningAppliance (MARA), Powerscope, Advancesyncetc are used for treatment.[2] Fixed functional appliances address class II skeletal problems through enhancing mandibular growth and causing dentoalveolar changes as well.[3-5] For activation of these type of fixed functional appliance different size/shape ofcrimpable shims are provided by manufacturer **(Figure 1)**.

The present article describes a method for chair sidefabrication of economic crimpable shims, which can be used for further activation of fixed functional appliances.

ARMAMENTARIUM (FIGURE 2)

1. 19-gauge stainless steel wire
2. Universal plier
3. Hard wire cutter
4. Weingart plier
5. Micro-motor with carbide bur.

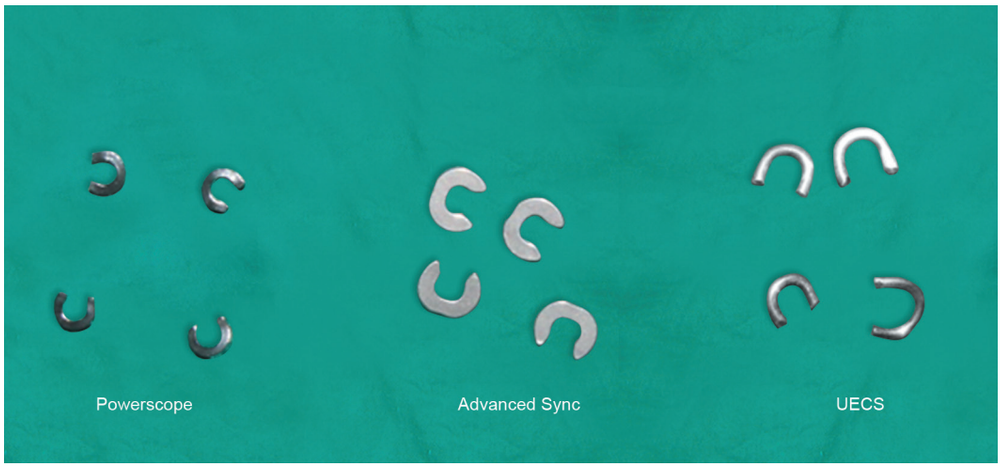

Figure 1 1 mm thickness shims of different manufacturer

Figure 2 Armamentarium

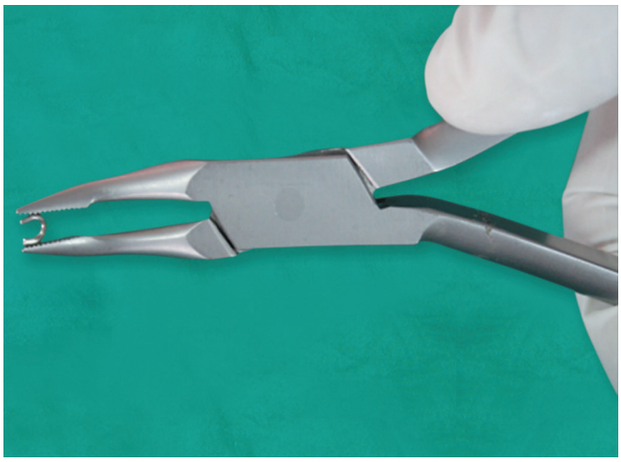

Figure 3 Weingart plier as a shims placing plier

FABRICATION

- To fabricate, economic shims (1mm dimension), a 19-gauge stainless steel wire is used, which is cheapest and easily available in any dental clinic.
- Small three fourth circle is formed by 19-gauge stainless steel wire with the help of universal plier then cut by hard wire cutter.
- Smoothen the end of the circle with the help of micro-motor and carbide bur.
- Now this UECS is ready to be crimped.
- To crimp this UECS into the place Weingart plier can be used **(Figure 3)**.

Clinical Use and Advantages

1. Activation of Powerscope and Advanced sync is possible **(Figure 4)**.
2. Applicable in various Fixed Functional appliances.
3. Less than 1 mm activation is also possible with the help of 20-gauge or 21-gauge stainless steel wire shims **(Figure 5)**.
4. Chair side fabrication is possible.
5. Inexpensive and cost effective.
6. Easy to fabricate.
7. Negligible chair-side time.

CONCLUSION

While using fabricated UECS, clinician should keep in mind that we are not replacing preformed shims provided by the manufacturer but it is an adjunct which helps to further activate the Powerscope/Advanced sync type of fixed functional appliances.

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Nil.

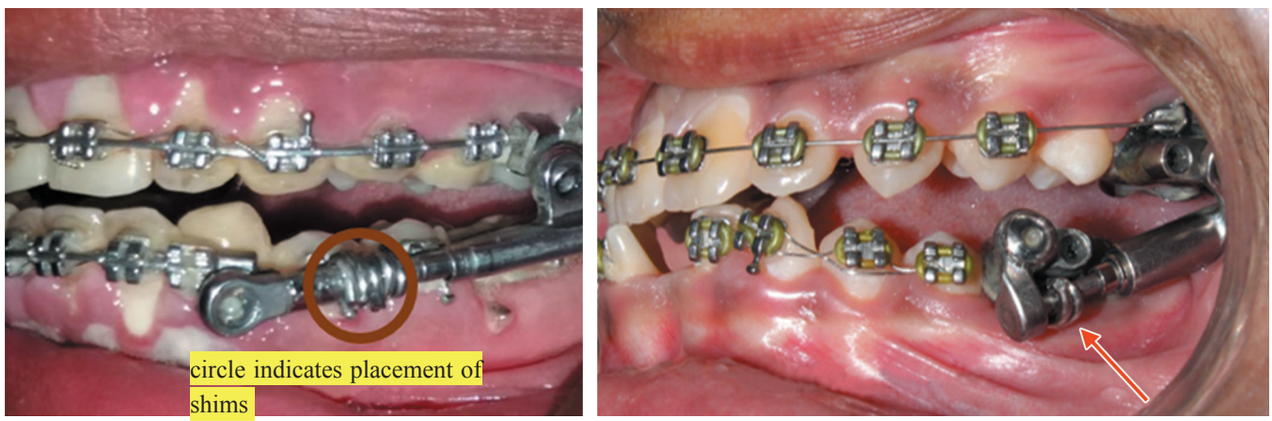

Figure 4 Activation of Powerscope and Advanced sync by UECS

Figure 5 Different thickness UECS

Conflict of Interest

There are no conflicts of interest.

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