

“Synergy R® can make all these things easier..”

In conclusion, I would like to comment on a patient that re-visited the practice recently and caused me to reflect on brackets. My office had seen this patient several years ago for an initial orthodontic consultation and the family elected to go with another orthodontist in the area. I had thought nothing more about the case until they recently showed up at my practice. The patient has been in appliances for over two years and there has been little progress. The patient was bonded with a leading self-ligating bracket and as you can see there has been minimal progress over the course of a two year treatment.

Two years of treatment- self ligating



Why do I bring this up? Because the bracket is not the doctor. The bracket can't diagnose, can't treatment plan, and can't treat the case. The patient should not be asking for a specific bracket, nor should the marketing of a specific bracket be the place of any practice. Even a fantastic bracket is worth little if the doctor lacks the knowledge or skill to treat the case. The bracket should be a tool to aid the doctor in accomplishing the goal of moving the teeth in a faster, easier, and more comfortable and convenient way. That is our job. We are still the doctor. Synergy R® can make all these things easier and can help treatment progress faster. Synergy R® can aid in the A-P, vertical, and transverse correction and Synergy R® can aid in the detailing and finishing of the case, but remember that you are still the doctor and every case still deserves the personalized attention to detail that Synergy R® can provide.

CASE 6

Patient presented with a Class II, division 2 malocclusion, deep bite, rotations, and a poor arch form. The treatment plan was to open the bite by leveling the Curve of Spee, improve the arch form using Synergy R, and then move into Class II elastics.



After 16 weeks of treatment, the arch forms were significantly improved and the patient was ready to move into working wires and Class II mechanics.

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Synergy R®

a clinical pearl

Article written in by Travis Barr B.S. and Gary Holt D.D.S.

RMO®'s Synergy R® bracket System is a new and unique frictionless bracket system utilizing covered slots on all cuspids and bicuspid (figure 1) as well as a frictionless anterior ligature tie setup using Synergy R® brackets (figure 2). Synergy R® brackets offer a frictionless design without the hassle of doors while still providing patients with the much loved ligature colors at the later treatment stages. However, as with all new and improved technology come challenges. With the Synergy R® bracket the challenge is presented at the initial bonding, when placing the first archwire. As with most orthodontic cases, the interbracket mesial to distal distance can be very small, and/or have rotational angles that exceed 45 degrees, and/or have a height difference of several millimeters (figure 2). Using Synergy R® brackets to treat these cases works well when full wire engagement in the brackets occurs. Complete wire engagement in Synergy R® brackets requires the “threading” of the wire between and through each bracket (figure 2).

In this article we describe a technique that utilizes the natural flexibility of Ni-Ti to fully engage the archwire. This technique results in complete expression of the wire and best utilizes the frictionless environment provided by Synergy R® brackets.

“Synergy R® brackets offer a frictionless design”

Figure 1. Shows the slot and slot cover for the RMO Synergy R® bracket.



Figure 2. Example of full arch wire engagement using Synergy R® brackets. Also shows the slotted cover on cuspids/biscupid brackets as well as the frictionless anterior lateral to lateral setup.



Step 1. Push the wire through the bracket until you can see it coming out the distal part of the bracket.



Step 2. Place a scalar on the distal part of the bracket behind the wire and grab an anterior part of the wire with a Hemostat.



Step 3. Push the wire buccally with the scalar while simultaneously pushing distally on the wire with the Hemostat. This will allow the wire to come through the slot. Push an ample amount of wire through; this will be your working wire. Usually the length of two bicuspid is enough.



Step 4. Grab the wire with the Hemostat and thread it through the next tube. The wire will curl back around on itself. The extra wire allows for flexibility and if the wire is damaged during this step you can remove the damaged area.



Procedure

Starting the wire sequence with a .014 Thermalloy® Plus archwire is preferred for the material property benefits. The .014 Thermalloy® Plus wire works well due to its flexibility, ability to regain its initial shape after placement, and adequate force level.

The focus of this technique is wire insertion/threading through cuspid and bicuspid brackets, because the greatest challenge is to “thread” the wire from 1st to 2nd bicuspid, and/or from 2nd bicuspid to 1st molar. The following four-step sequence describes this process:

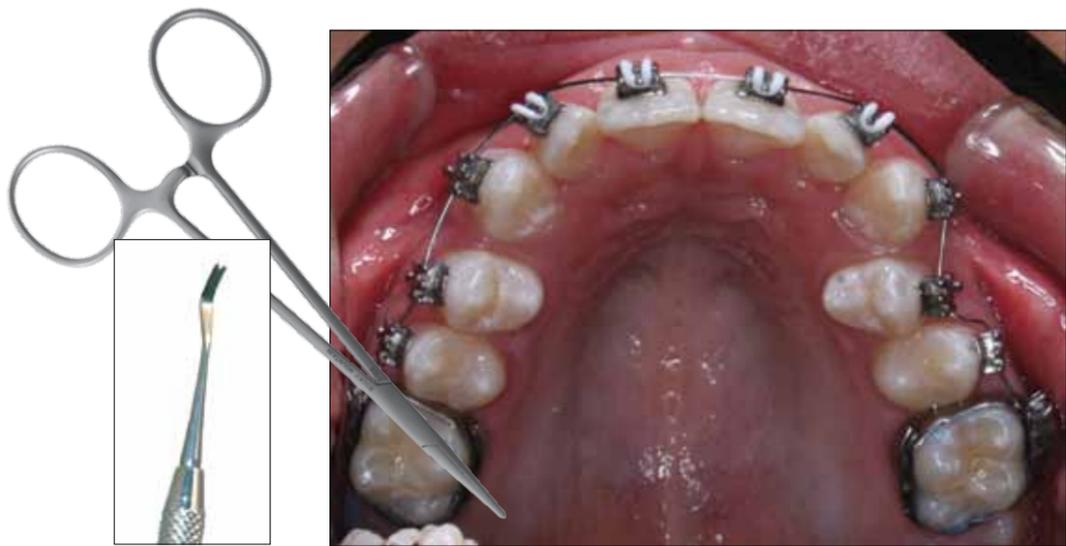


Figure 3. Instrumentation used for wire placement; Clinical photo showing the rotational challenges often encountered.

Discussion

This simple four-step procedure works well in most cases to allow full wire engagement in the most difficult bracket placements (figure 3). However, if there is less than 2 mm interbracket distance, the technique is not as effective. This is due to either not having enough wire flexibility to complete the threading or not having enough free movement to allow the torque built up in the wire twisting to be released. A semi-permanent curl can result in the wire (figure 4) until more room is available.



Figure 4. Demonstration of a curled wire that was unable to release the torque build-up until further room was made between the brackets.

Another challenge that occurs at initial bonding is when the distal bracket slot is pressed against the adjacent tooth, not allowing room for the wire to slide through the slot. This can easily be overcome with bracket placement and a reposition later in treatment.

Conclusion

By following a simple procedure, full arch wire engagement is achieved in Synergy R[®] brackets unless there is an extreme case of anatomy misalignment. The full functionality of the frictionless Synergy R[®] bracket system is expressed at the initial bonding.

SWLFSYNERGY R[®]

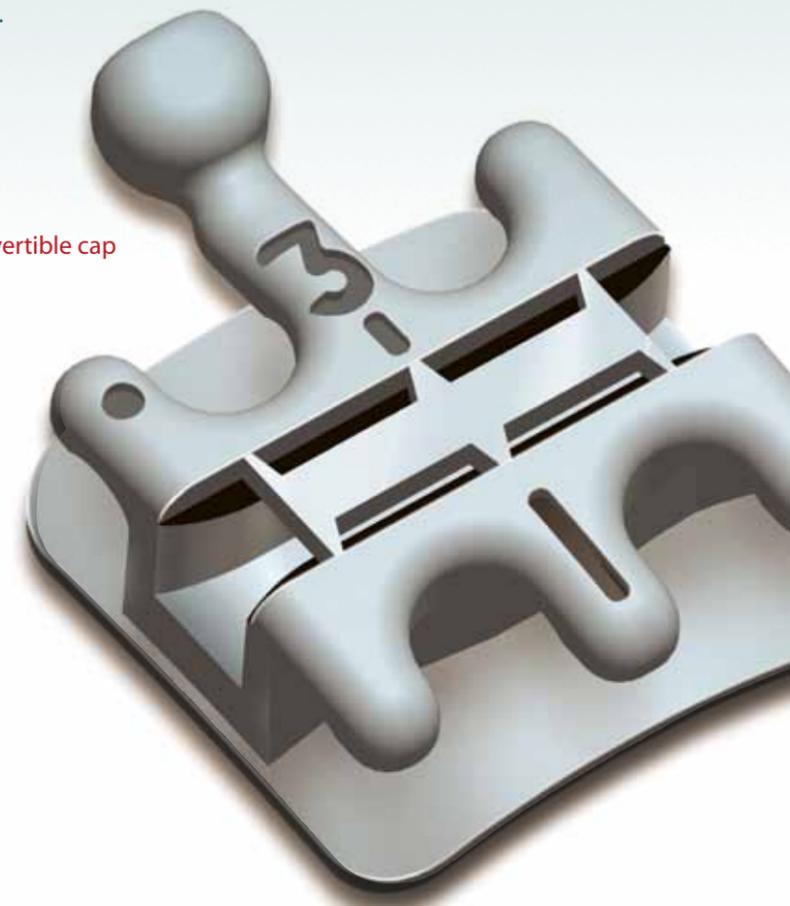
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