

“Attaching crimpable hooks: An easy way out”

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Abstract

With the advent of pre-adjusted edgewise orthodontic bracket systems, archwire fabrication has been considerably simplified. Archwires that are devoid of any loops or customizing bends can be utilized. These include fabricated tie-back loops, soldered brass hooks, pre-posted archwires and crimpable archwire hooks. Soldering requires chairside or laboratory equipment, is time consuming and may lead to annealing of the archwire. Crimpable archwire attachment allows quick and simple placement of the attachment in any desired position along the archwire in or out of the mouth. This clinical pearl aims at showing an easy and effective method of crimpable hook attachment without any compromise on arch wire properties.

Key words: Stainless steel, crimpable hooks, composite

Retraction mechanics is an anteroposterior therapy used to close spaces, correct procumbency, and reduce the overjet. En masse retraction methods usually employ crimpable hooks between the lateral and canine on arch wires as means of attachment for retraction.

Although crimping of hooks on arch wires is less time consuming and easier for the clinician, they usually pose a problem of getting loosened along the arch wire. This can be an obstacle during retraction and is overcome by many clinicians by crimping the hooks with heavy force or by spot welding the hook to the wire. Crimping of the hooks with heavy force can cause the wire to distort^[1] and spot welding or soldering can result in annealing of the wire due to the heat produced compromising the wire properties.^[2] Furthermore, pre posted wires have an increased cost and require large inventory.^[3]

This clinical pearl aims at showing an easy and effective method of crimpable hook attachment without the above mentioned side effects.

Steps of the procedure:

1. Mark the area in the arch wire to be crimped after confirming the distance intraorally [Figure 1a] and sandblast the marked area using a micro sand blaster. [Figure 1b].
2. Place a small bead of bonding composite material into the slot of the crimpable hook [Figure 1c] and crimp it on to the wire [Figure 1d].
3. Remove the excess flash and light cure it for 30 to 40 seconds.
4. Transfer the arch wire into the mouth [Figure 1e] and retraction can be commenced [Figure 1f].

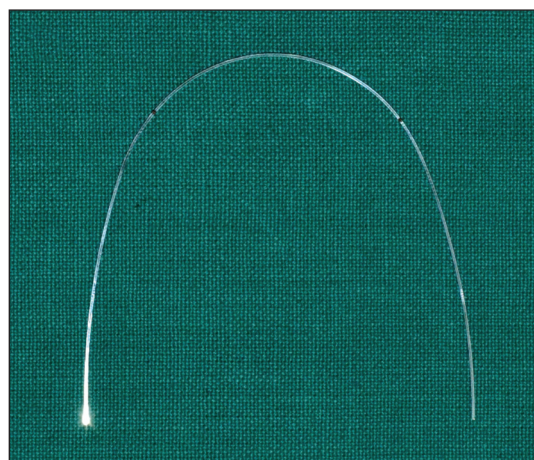


Figure 1a: Marking of arch wire

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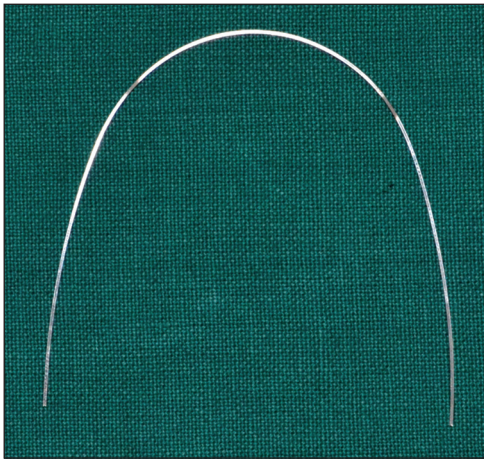


Figure 1b: Marked area sandblasted



Figure 1c: Composite applied within hook slot

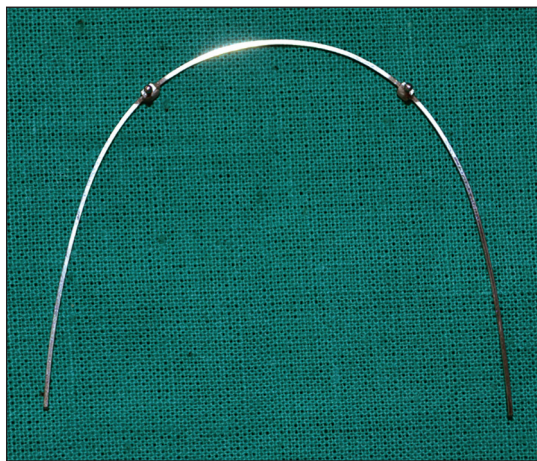


Figure 1d: Hook crimped on to arch wire

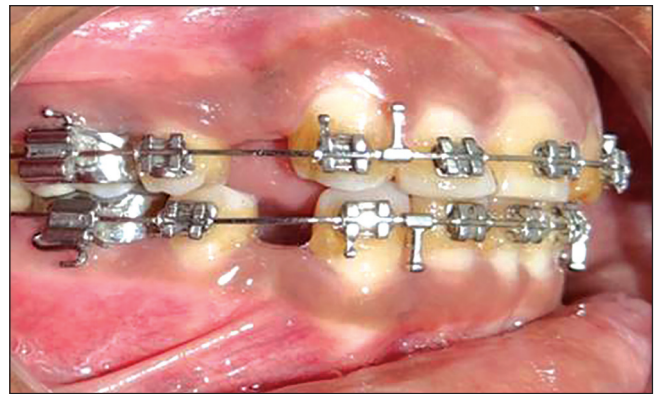


Figure 1e: Archwire placed in the oral cavity

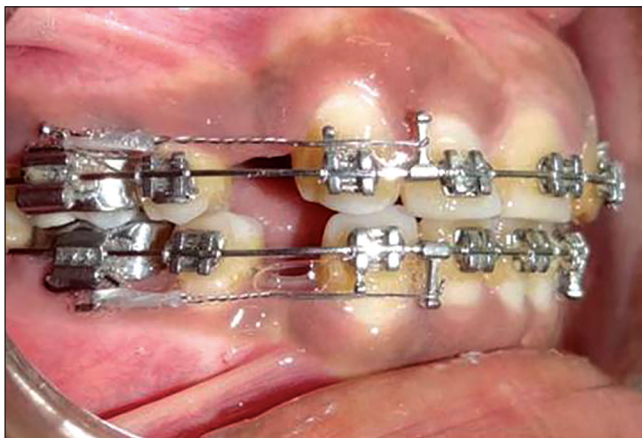


Figure 1f: Retraction commenced

This chairside procedure can be used as an effective and relatively easy method during en masse retraction without any compromise on arch wire properties.

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