

A Power Arm for Canine Retraction with Miniscrew Anchorage

SUMIT KUMAR YADAV, BDS, MDS
VIKAS SEHGAL, BDS, MDS

We have devised a simple technique for attaching a power arm to a canine bracket before bonding, allowing bodily retraction of the canine with a segmental archwire¹ and miniscrew anchorage² (Fig. 1).

Procedure

1. Cut a 30mm segment from a length of preformed stainless steel tubing* with an internal diameter of .040".
2. Place one end of the tubing over the hook of the canine bracket (Fig. 2).
3. Secure the tube to the bracket hook by pinching the tube and then welding it in place (Fig. 3). Use an abrasive disk to smooth the free end of the tube

*Part No. 480-011, Dentaaurum, Inc., 10 Pheasant Run, Newtown, PA 18940; www.dentaaurum.com.

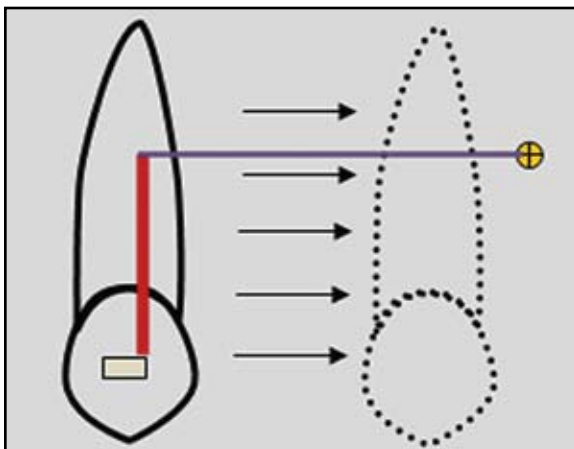


Fig. 1 Attaching power arm to canine bracket allows bodily retraction.

if necessary.

4. Adjust the angle of the power arm so that the line of force will pass through the center of resistance of the canine after bonding.³ This may be easier to visualize if the bracket is temporarily affixed to the patient's plaster study cast (Fig. 4).
5. Bend the free end of the power arm mesially with a universal plier to form a hook, then recheck the angle to ensure that it has not changed.
6. Bond the finished bracket and power arm to the canine and apply a Class I force between the power arm and the miniscrew (Fig. 5A). Bodily canine retraction in the patient shown here was completed in four months (Fig. 5B).

Discussion

We have found that most metal canine twin brackets with hooks will accommodate the tube



Fig. 2 Segment of stainless steel tubing placed over canine bracket hook.

Dr. Yadav is Senior Resident, Unit of Orthodontics, Oral Health Sciences Center, PGIMER, Chandigarh 160012, India; e-mail: sky20083@gmail.com. Dr. Sehgal is a Reader, Department of Orthodontics, DAV (C) Dental College, Yamuna Nagar, Haryana 135001, India.



Dr. Yadav



Dr. Sehgal

segments. In the rare instance that a weld has loosened, we have successfully stabilized the hook and tube with composite until the retraction was completed.

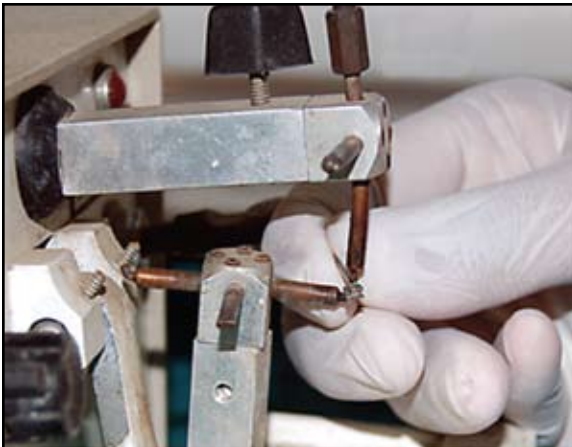


Fig. 3 Tube welded to bracket hook.



Fig. 4 Angle of power arm adjusted for proper mechanics with canine bracket temporarily affixed to plaster study cast.

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Fig. 5 A. After bonding of canine bracket, retraction force activated with elastic chain from power arm to miniscrew head. B. Patient after four months of bodily canine retraction.