CASE 6 CANINE IMPACTION/ ANKYLOSIS

Indication

- To assist in the extrusion of a tooth or a group of teeth when normal eruption has failed either due to impaction, ankylosis or primary failure of eruption.

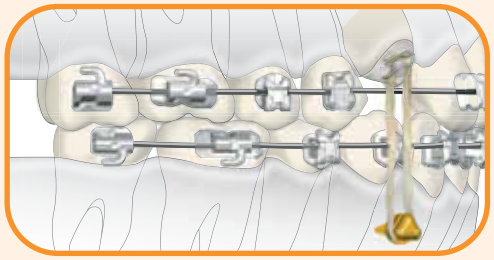
Benefits of VectorTAS vs. Conventional Mechanics

- Tooth extrusion may be attempted without any unwanted movement of the adjacent teeth, precluding potential arch deformation when ankylosis (even partial) is discovered.
- Treatment can progress independent of adjacent dentition.
- Extrusion may be initiated prior to progression into heavy archwires.
- Teeth subject to ankylosis or primary failure of eruption may possibly be extruded into proper occlusion without the need for a block osteotomy.

Items Required for Placement

- Topical anesthetic.
- Supplemental local anesthetic delivered via MadaJet XL.
- VectorTAS Driver.
- One VectorTAS Orange 8 mm Miniscrew.
- One medium-weight elastomeric or rigid bondable hook, depending on the setup.

Direct Biomechanical Setup



MINISCREW PLACEMENT

TYPE	POSITION
8 mm	In the mandibular arch where a vertical vector can be established from the cuspid with an elastomeric or elastic chain.

ATTACHMENT

TYPE	POSITION
If cuspid crown is partially erupted: Medium-weight elastomeric.	Attach the elastic from the miniscrew to a cleat bonded as gingivally as possible to the facial surface of partially erupted cuspid.
If cuspid crown is unerupted: Bond a rigid hook directly to the tooth.	Attach the elastic from the miniscrew directly to the rigid hook on the tooth.

Clinical Expectations

- If, after several weeks of continuous elastic wear, ligature tie a mandibular tooth to the miniscrew and hook the elastic to the ligated tooth and increase the elastic force.
- Cuspid immobility after several weeks of applying higher elastic force indicates that frank ankylosis exists and alternative treatments (such as cuspid extraction or luxation) should be explored.

- When ankylosis is suspected, luxation or the partial elevation of a tooth from its surrounding bone is often beneficial to fracture and free the tooth from its bony fusion. Luxation may be done at the time of exposure, bonding or as a separate procedure.
- The premise with luxation via miniscrew temporary skeletal anchorage is that any areas of ankylosis on the tooth root will be fractured, thus freeing the tooth from its bony fusion. The force generated on the canine is independent of the archwire, which fosters uninterrupted progression of treatment mechanics.