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Intra Oral Molar Distalization Devices

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Abstract

Conservative orthodontic treatment has been the concept of treatment modality that is in focus in modern orthodontics. Space gaining for correcting malocclusion is a necessity and conservative approaches have been introduced to gain space without extraction of teeth. Molar distalization is one of the main treatment modalities that have been introduced for space gaining. Extraoral as well intraoral devices have been deviced for molar distalization. Intraoral devices for distalization of molars are mostly used due to patient compliance and esthetic reasons. In this article we will briefly discuss about the variety of intraoral molar distalization devices available for orthodontists.

Keywords: molar distalization, intraoral devices

Introduction

The question faced frequently by an orthodontist when doing a treatment plan is “Do we need to extract teeth or can the necessary space be created without extractions”.? Since there is not much growth left in the bone structure of adult patients, we must resort to other treatment modalities for gaining space into which tooth movement can be done to rectify the malocclusion. The most commonly followed treatment protocols in cases of space deficiency are extraction, expansion and interproximal stripping.

Conservative treatment modalities are preferred more in current orthodontics to avoid extractions and, at the same time, to try to eliminate the need for patient cooperation. Consequently distalization of molars was developed as a means of creating space in the arch (Vasanthan, 2014).

Upper Molar Position

It is a linear measurement taken between distal surface of maxillary first molar and pterygoid vertical line (Ptv) and serves as an indicator for the forward positioning of maxillary molar and demonstrates whether there is sufficient space for second and third molars. This measurement can be used as an indication or contraindication for molar distalization. Its mean value is patient's age in years plus 3 mm until growth is completed and in adult patients mean value is 18 mm (Bench *et al.*, 1977).

Indications of Molar Distalization (Swaroopa Rani, 2016)

1) Profile:
   - Straight profile
2) Functional:
   - Normal temporomandibular Joint
   - normal maxillary mandibular relation
3) Skeletal:
   - Class I skeletal relationship
   - Normal lower face height
   - Maxilla - normal transverse width
   - Brachycephalic growth pattern
4) Dental:
   - Class II molar relationship
   - Deep overbite
   - Permanent dentition
   - Mesially inclined maxillary first molar
   - should be before the eruption of second molar, the angulation of third molars is also to be taken into consideration.
   - Maxillary cuspids are labially displaced.
   - in cases where the arch length is reduced due premature loss of deciduous 2nd molars.

Contraindications for Molar Distalization (Agarwal *et al.*, 2018)

1) Profile:
   - Retrognathic profile
2) Functional:
   - temporomandibular joint dysfunction.
   - Condyles that are displaced posteriorly and superiorly
3) Skeletal:
   - Class II skeletal relationship
   - Skeletal open bite

- Excess lower facial height
- Constricted maxillary arch
- Dolichocephalic growth.

4) Dental:

- Class I or Class III molar relation.
- Dental open bite
- Maxillary first molar which is distally inclined.
- Mesocephalic face

Treatment Timing

The late mixed dentition time is considered as the proper time to start the distalization and it is considered late after the second molars have erupted. Because there is some synergistic effect as the dentition transits from primary to permanent and clinically erupting canines and premolars often appear to follow molars as they move distally. Thus appliances like the pendulum that require some anterior anchorage, may dilute these results (Gianelly, 1998).

Treatment Planning and Sequence (Vasanthan, 2014)

The treatment approach is divided into two phases:

- First phase/ Space gaining phase
- Second phase/ Consolidation phase

Objectives Of 1st Phase/ Space Gaining Phase:

- To distalize the upper molars bodily so that the patients will occlude in Super class-I occlusion (i.e. over corrected).
- To achieve generalized spacing through dento-alveolar widening and growth.
- To correct molar inclination, rotation and cross bite.

Objectives of second phase/consolidation phase are:

- Andrew's six keys to normal occlusion.
- Overbite, Overjet and all dental malpositions are corrected
- Creation of a posterior anchorage unit.
- Intrusion and retraction of the upper front teeth with the appropriate mechanics.
- Closure of residual spaces.
- Detailing of the arch and occlusion

Classification of Molar Distalisation Appliances (Bolya and Rajput, 2015)

1. Location of appliance

- Extra-oral: Headgear
- Intra-oral: Pendulum, Jones Jig

2. Type of appliance

- Removable: Cetlin Appliance, TMA – Trans Palatal Arch.
- Fixed: Pendulum appliance, K. loop molar distalizer, Lokar appliance.

3. Arches involved

- Intra-arch: Jones Jig, K. loop distalizer
- Inter-arch: Sliding Jig, Fixed functional appliances

4. Position of appliance in mouth

- Buccal :magnets
- Palatal: distaljet, transpalatal arch

5. Type of tooth movement

- Bodily movement: distal jet, fixed piston appliance
- Tipping movement: pendulum, jones jig

6. Compliance needed from patient

- Maximum compliance: headgears
- Minimum or No compliance: implant supported, distal jet

Removable Molar Distalization Splint

This was developed by Korrodi Ritto in the year 1995. The Removable Molar Distalization Splint can achieve better patient cooperation than some other removable devices.

If both upper first molar are to be moved distally at the same time, the splint extends from the area of upper first or second premolar to the opposite side premolars. If only one molar is distalized, the splint extends to the terminal molar on the other side. Two internal clasps are used for retention and a Ni-Ti coil spring produces 220gm of distal force. The coils are reactivated for distalization of molars (Figure no.1).

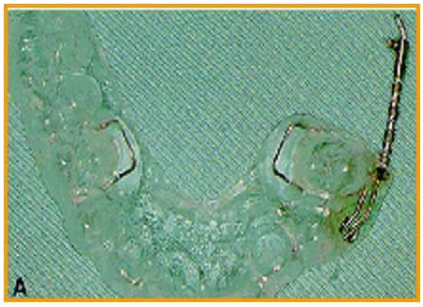


Figure: 1

Molar Distalization System (MDS)

Two opposing magnets are used for each quadrant. The mesial magnet of each pair is mounted so that it can move freely along a sectional wire. A sliding yoke, with ligation hooks mesial to the mesial magnet brings the repelling magnets together to activate the magnetic force (Figure no.2) (Anthony 1988).

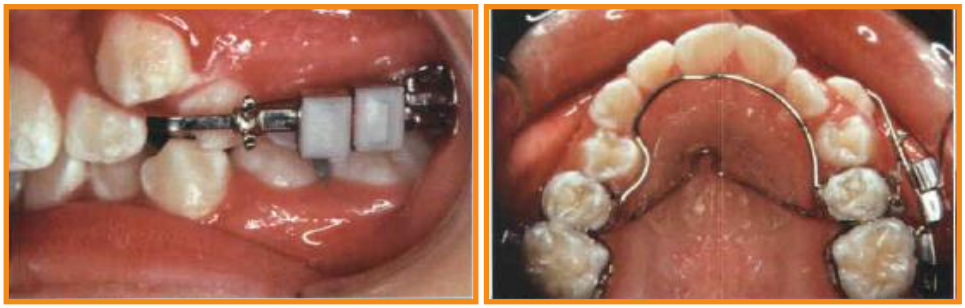


Figure no.2

Figure no.3

Magnets are in contact with each other and it produces a force of 220g. The constant force helps in achieving rapid movement of the molars distally and a space of 2mm can be created within 3 weeks using magnets (Figure no.3).

Jones Jig Applince

Jones Jig was developed by Richard D. Jones and J.Micheal White in the year 1992 this appliance uses an open coil spring NiTi to produce around 70-75 gm of force over a compression range of 1 -5mm to the Molars. The Nance appliance is cemented and the Jones Jig is laid in place on both sides. Reactivation is done after every 4 -5 week's intervals (Figure no.4).

Figure no.4

Lokar Appliance

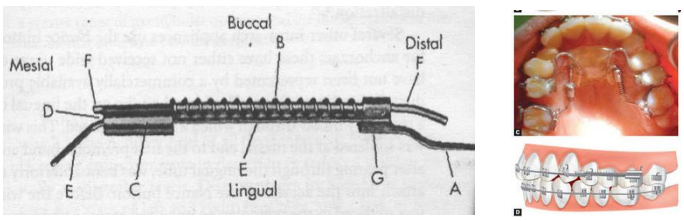


Figure no.5

The Lokar appliance was developed by Dr. Lokar in the year 1994

A- Inserts into molar attachment with a rectangular wire B- Compression spring
C- Sliding sleeve D- Groove E- Flat guiding bar F- Round posterior guiding bar
G- Immovable posterior sleeve

It consists of 2 basic components:

A. Mesial sliding component

B. component which inserts into the arch wire tube of the molar

The distalizer is inserted into the arch wire tube of the first molar and the application is adapted such that it is parallel to the plane of occlusion and as close to the teeth as possible for comfort (figure no. 5).

The force is developed by NiTi-Coil springs which get compressed during activation. The anchorage is by a Nance appliance, soldered to the premolars.

Molar Distalization with Superelastic Niti Wire

Described by Gianelly in 1992. A 100gm (Neosentalloy) super elastic NiTi Wire with shape memory regular arch from is used. On this archwire 3 points are marked-Distal wing of 1st premolar bracket. 5-7mm distal to the anterior opening of the molar tube and in between the lateral incisors and canines. Stops are crimped and hook added at these points. Then the wire is inserted in such a way that the posterior stop abuts the mesial end of molar tubeand the anterior stop abuts the distal of premolar (Figure no.6).

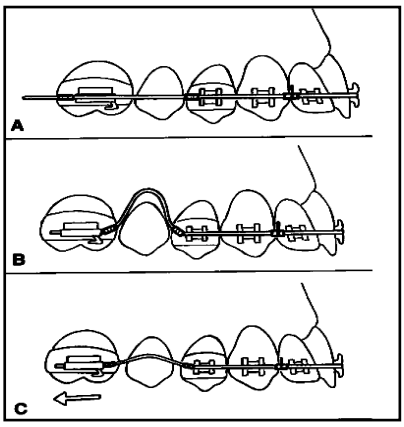


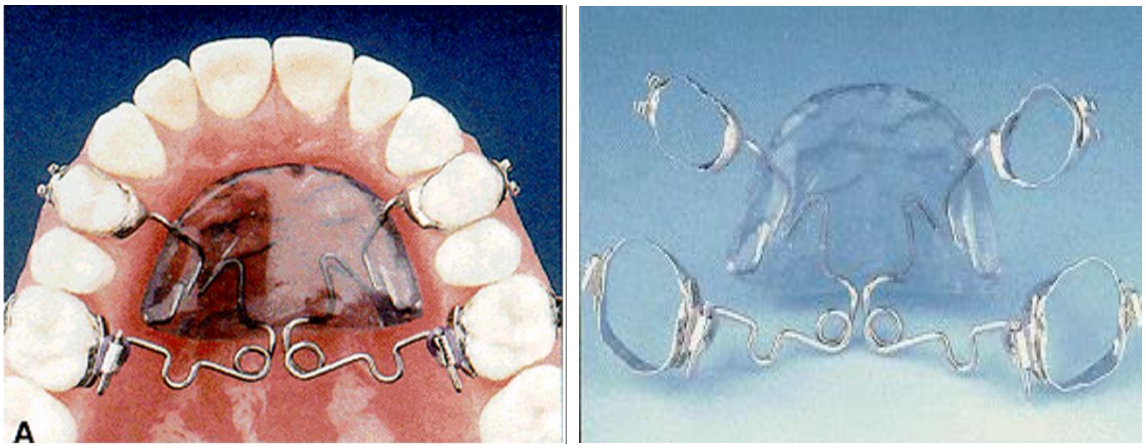
Figure no.6

Pendulum Appliance

This was developed by James Hilger in the year 1992. It is a hybrid appliance which uses a large Nance acrylic button for anchorage and a 0.032” TMA spring that delivers a force to the first molars continuously without affecting the Nance acrylic button. Thus it produces a broad swinging or pendulum of force from the midline of palate to the upper molars (Figure no. 7).

Stabilisation of the molars can be done in any of the four ways.

- By removing the Nance acrylic part and a fixed appliance can be bonded
- Using the incisors as anchorage, the maxillary utility arch can hold the molars back. Elastomeric chains



can be used for retracting the buccal segment and the Nance acrylic button can be placed after the pendulum appliance is removed. Figure no.7

- After bonding the arch, an arch wire containing an omega loop can be placed mesial to the molar tube.
- Headgear can be used for stabilization.

Modifications of Pendulum Appliance

I. M-Pendulum

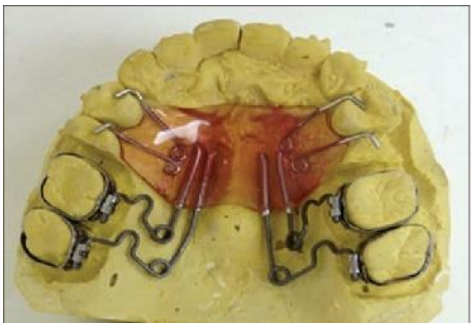
Schuzzo, Pisani and Takernoto, in 1999, produced a modification to this appliance and called it the M-PENDULUM appliance. A mesially inverted horizontal loop is present which allowed bodily movement of roots as well as the crown of molars. True bodily molar movement; minimal dependence on patient compliance; less need for reactivation and ease of fabrication (Figure no.8).

Figure no.8

II. Modified Pendulum Appliance with Removable Arms

Pisani, Takemoto and Vecchia in the year 2000 introduced this modification to the appliance. 7mm - 9mm of *0,032* TMA wire is doubled over and bayonets are formed. Each bayonet is then attached to an M-PENDULUM arm either by a laser welder or by wrapping a 0.010” ligature wire around the arm and soldering the unit. Each bayonet is embedded in the soft acrylic that will be used to form Nance button producing sheaths to insert the removable arm. The arms are activated in the working cast as desired.

III. **Modified Pendulum Applaince for Anterior Anchorage Control**

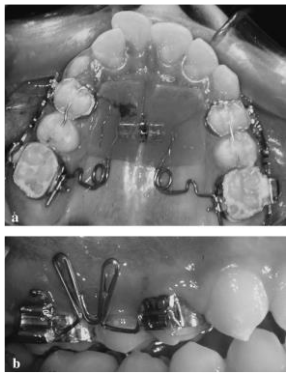


This modification was given by PABLO ECHARRI and SCHUZZO in the year 2003 and it consists of four removable arms for both the first and second molars. The internal diameter of 4 stainless steel tubes embedded in the acrylic corresponds to that of removable TMA arms. The second molars are distalized after which arms are left passively in place for anchorage and first molar arms are activated for distalization.

Figure no.9

Pendulum is replaced with a Nance button after first molar distalization (Figure no.9).

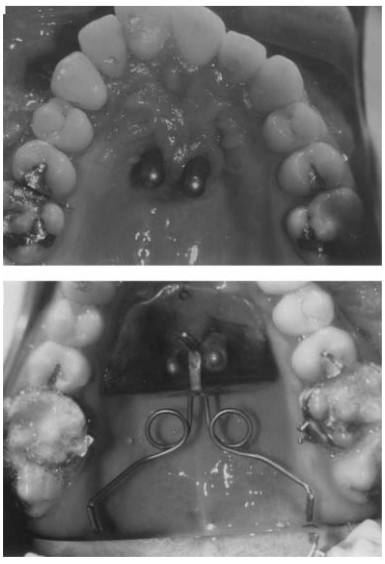
IV. **K-Pendulum Appliance**



The pendulum appliance that was described by Hilgers (1992) was used and a K-loop was fabricated according to the description given by Kalra in 1995. The K-loop was made from a 0.017 × 0.025 TMA wire and was placed between the upper first molar and the first premolar (Figure no.10). The loop is activated every 6 weeks and when a Class I molar occlusion is obtained, the appliance is replaced by a Nance button for retention.

Figure no.10

Graz Implant Supported Pendulum



The pendulum appliance was modified by Byloff et al in 2000 to utilize an implant for better anchorage control. The implants are loaded after a time period of around 12 to 24 weeks to allow healing and osseointegration, which seems to be a general rule in the use of implants. Byloff described a newly designed palatal anchoring system, the Graz implant-supported pendulum (GISP). This system can be loaded within 2 weeks to distalize and anchor maxillary first and second molars. The anchorage part of the GISP comprises of a simple surgical plate (15 X 10 mm) with 4 screw holes. Two cylinders that are 10 mm long and 3.5 mm in diameter is soldered at right angles to the center of the plate.

Figure no.11

The plate is then fixed to the palatal bone through four 5-mm long titanium mini screws the 2 cylinders perforate the palatal mucosa to enter the oral cavity (Figure no.11).

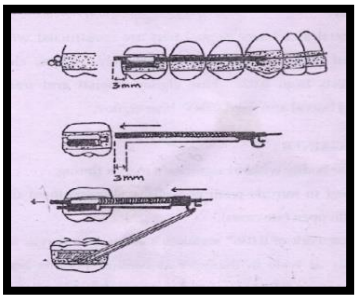
K-Loop

K loop was given by VARUN KALRA in the year 1998 for molar distalization. The appliance has a K loop which is placed at the centre between the 1st premolar and molar. This provides the forces and moments and a Nance button is given for anchorage.

Figure no.12

Each loop of the K should be 8mm long and 1.5mm wide (Figure no.12). The legs of the K are bent down 20° and inserted into the molar tube and the premolar bracket. The *K* loop is made up of 0.017 X *0.025* 'TMA which can be activated twice as much as stainless steel before it undergoes permanent deformation. Force produced by the TMA will also be half

Tendem Yoke



The appliance Consists of 0.04" end sections, which provide rigidity and support, intermaxillary hooks and an anterior arch bar of 0.22" true-chronic for flexibility (Figure no.13) (Cetlin and Hoeve, 1983). It produces rapid, friction free, 24 hours distal movement of molars. Molar tube is 0.018 x 0.025" or 0.022" x 0.028" with 0.045" round tube .Intermaxillary elastics are worn for 12 hours a day for distalizing following which they are removed and head gear is applied at night.

Figure no.13

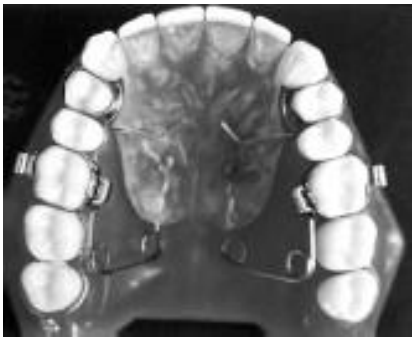
The Fixed Piston Appliance

The Fixed Piston Appliance was introduced by Greenfield in 1995 and it can produce bodily movement of the upper first molars without the use of extra oral appliances. There is also no loss of posterior anchorage. The appliance components are maxillary Ist molar and Ist premolar bands. 0.036" stainless steel tubing that is soldered to the bicuspids, 0.030" stainless steel wire that is soldered to first molars, an enlarged Nance button, reinforced with a 0.040" SS wire. 0.55" (interior diameter) super elastic NiTi open coil spring is used (Figure no.14).

Figure no.14

NiTi open coil spring is placed to fit the entire length of buccal and lingual assemblies

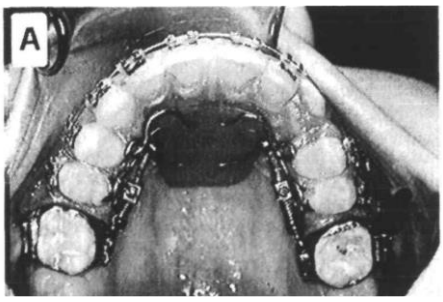
Intra Oral Bodily Distalizer



This appliance was developed by Ahmet Keles in the year 2000.The intra oral bodily molar distalizer consists of 2 parts. An Anchorage part and a distalization part. The anchorage part is the Nance button and the distalizing part has springs. These springs delivers two components of force. The distalizer section of the spring delivers a crown tipping force, while the uprighting section delivers a root tipping force (Figure no.15).

Figure no.15

The Lingual Distalizer System



Introduced by Carano, Testa and Siciliani in 1996.

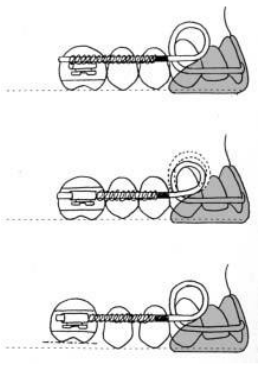
The active components of the lingual distalizer are two bilateral 0.9 mm tubes that are connected to a Nance appliance. The Ist molar bands has a bayonet wire inserted into its lingual sheath. A stainless-steel coil spring and a clamp is present on the tube.

Figure no.16

The clamp can slide towards the molars and can be tightened in order to compress the coil. Recently NiTi spring have been used, but it has no significant advantage over the stainless-steel coil springs (Figure no.16)

C-Space Regainer for Molar Distalization

Introduced by Kyu-Rhim Chung, Young-Guk Park and Su-Jin 2000



.It is a removable appliance which can be used to achieve bodily movement of the molars without causing significant flaring of the incisors. It consists of a labial framework which is formed from 0.036" stainless steel wire and an acrylic splint. A closed helix is bent into the framework in each canine region (Figure no.17). The labial framework is extended distally to lie as close to the buccal molar tubes as possible, allowing easy insertion into the head gear tubes and improving the precision of the distal driving force.

Figure no.17

Distal Jet Appliance

Developed by Dr. Carano and Dr. Testa in 1996

It consists of bilateral tubes - 0.036" internal diameter in buccal and palatal surfaces. A coil spring and a screw clamp are present, which slide over each tube with a wire extending from the acrylic plate through each tube and ends in a bayonet bend that is inserted into the lingual sheath of the 1st molar band. Anchor wire from the nance button soldered to bands on the second premolars (Figure no.18).

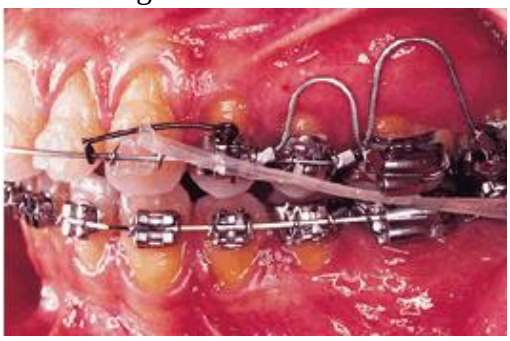
Figure no.18

Niti coil springs of 150 gm for children and 250 gm for adult, appliance can be made of stainless steel spring.

Nickel - Titanium Double Loop System

Aldo Giancotti and Paulo Cozza in the year 1998 introduced a new system using the Neosentalloy for simultaneous distalization of the first and second molars.

Figure no.19



The mandibular first and second molars and second bicuspids should be banded and remaining teeth are bonded. Lip bumper should be given to prevent any extrusion from the use of class II elastics. Maxillary molars and bicuspids are banded and anterior teeth bonded. Neosentalloy arch wire is then placed on the maxillary arch and marked distal to the first premolar bracket and 5mm distal to the first molar tube. Stops are then crimped in the arch wire. Two sectional Niti arch wires (on either side) are prepared by crimping stops distal and mesial of the 2nd premolar bracket and 5 mm distal to each second molar tube. Uprighting springs are inserted into vertical slot of the 1st premolar and class II elastics are placed between mandibular 1st molar and maxillary canine bracket to apply a distalizing force (Figure no.19).

Crickett Appliance

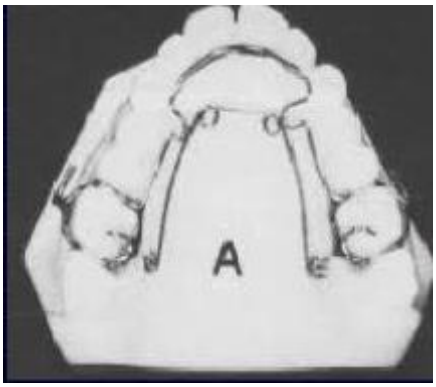


Figure no.20

Dr. Robert M. Ricketts 1996 has developed and successfully used a modification of the basic Crozat appliance, affectionately referred to by patients as the Crickett (Crozat/Ricketts) appliance. This appliance embraces the essential features of the quad helix using the basic form of the Crozat, but replacing the palatal and lingual bars of the upper and lower appliances with a quad- and bi-helix, respectively (Figure no.20).

First Class Appliance

This appliance was developed by Fortini, Lupoli, Parri in the year 1999.

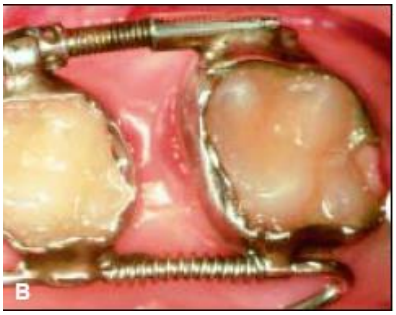


Figure no.21

The First-class appliance is a new type of appliance fabricated for unilateral or bilateral Molar Distalization. Bands are placed on the maxillary first molars and on either the second premolars or the primary second molars (Figure no.21). This appliance mainly consists of 2 components Figure no.21.

1. Vestibular Components

2. Palatal Components

Vestibular Components

The vestibular components consist of formative screws. These are soldered onto the buccal sides of the bands of first molars, occlusal to the 0.022” X 0.028” single tubes, so that they do not interfere during the insertion of arch wire. Split rings, welded to the second premolar act as a control for the vestibular screws. Stop screws are used to maintain the distal positions of the molars after active movement has been completed.

Figure no.22

Palatal Components

The appliance in the palatal aspect is wider than the modified Nance appliance and is butterfly shaped for added stability and support during retention. The 0.045” wires that are embedded in acrylic should be in a single section without welded joints, to prevent breakage. Sections of 0.045” tube are soldered to the palatal sides of first molar bands for insertion of the butterfly component. These tubes allow the molars to be distalized without undesirable tipping. Niti coil spring of 0.010”x0.045”and about 10mm in length is inserted by fully compressing it between the solder joints and tubes. These springs are designed to balance the action of the vestibular screws thus preventing molar rotations.

Mandibular Appliances

Lip Bumper

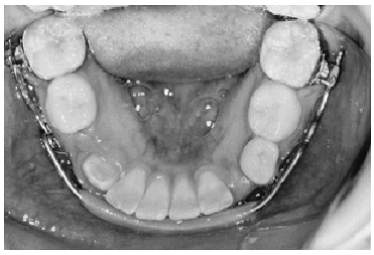


Figure no.23

The lip bumper is a fixed functional orthodontic appliance. (Figure no.23) It works by altering the equilibrium between the cheeks, lips, and tongue and by transmitting force from perioral muscles to the molars, where it is applied (Gerety, 1997).

The Franzulum Appliance

The Franzulum appliance is a new appliance used for distalizing mandibular molars invented by Byloff and Darendeliler. The Franzulum appliance's anterior anchorage unit is an acrylic button, positioned lingually and inferiorly to the mandibular anterior teeth and extending from mandibular left canine to the right canine (Figure no.24).

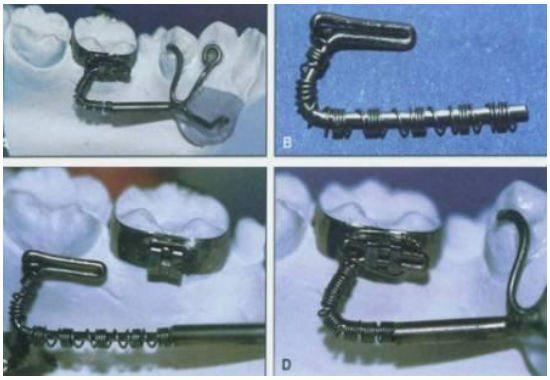


Figure no.24

The posterior distalizing unit uses Nickel Titanium coil springs which apply an initial force of 100-120 gm per side. The Franzulum appliance is an effective appliance in producing distalization of mandibular first molars.

The Unilateral Frozat Appliance

The Unilateral Frozat Appliance was developed by Kinzinger in the year 2004. The appliance consists of molar bands soldered to 0.38" blue Elgilloy or .040" stainless steel wire. The wire is fabricated on the cast with lingual steps bent mesial to the molars and the distance from the alveolar process kept as constant as possible in the anterior segment. On the anchorage side, the lingual arch is bent into an occlusal parallel loop, distal to the solder point on the Molar band, and then curved around to form the lingual arm of the appliance. The unilateral Frozat appliance is activated by a 3 prong pliers to make a first order bend on the anchorage side of the lingual arch, near the molar band. An anti-rotation bend must then be placed in the lingual arch in the region of the molar to be distalized.

The activation bends in the lingual arch should be placed at the level of the molars to ensure that the centre rotation is as close as possible to the centre of resistance, making the movement of the tooth mostly translatory.

The Carriere Distalizer

The Carriere distalizer was developed by Carriere 2004

Mold injected nickel free stainless steel is used to manufacture this appliance. It is bonded to the canine and 1st molar. The canine pad which allows distal movement of canine along the alveolar ridge without tipping, provides a hook for attachment of Class II elastics. This pad is in the mesial end of the arm that runs posteriorly over the 2 upper premolars in a slight curve. The posterior end of the arm is permanently attached to a ball that articulates in a socket on the molar pad. The ball and socket joint provides maximum freedom of movement in the appropriate direction

Herbst Appliance

It is a bite jumping device developed by Emil Herbst in *1905* used for class II correction. It was reintroduced by Pancherz in 1979.

It is a completely tooth-borne appliance and uses both the maxillary and mandibular dentition to transfer the force exerted from the telescopic arms of the Herbst bite jumping mechanism to the bases of the maxilla and the mandible. A posterosuperiorly directed force is produce by the telescopic system on the maxillary posterior teeth and an anteriorly directed force on the mandibular dentition. As a result, Class II molar correction generally is a combination of skeletal and dentoalveolar changes irrespective of facial morphology.

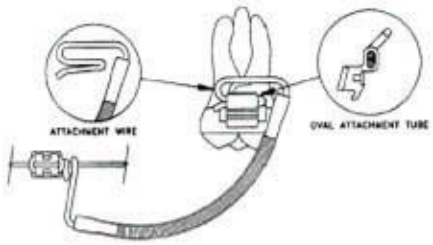
The Herbst telescoping bite jumping mechanism places a distal and intrusive force on the maxillary molars and the force vector passes occlusally to the center of resistance. This force system produces backward and upward movements of maxillary molars in conjunction with distal crown tipping. Because of the intrusive effect, distal movements of maxillary molars do not tend to open the mandible. These effects are similar to those produced by high-pull headgear.

Jasper Jumper

This appliance developed by James. J.Jasper 2006 is similar in concept to the Herbst appliance and is used in conjunction with fixed appliance. The jumper mechanism, which is available in a number of pre-selected sizes, is attached to the maxillary face bow tube through the use of a soft wire with a ball on one end. The amount of mandibular advancement is adjusted by lengthening the maxillary connecting wire.

The Superspring II

The Super Spring II was developed by Klapper in the year 1999.



The super spring II is a flexible spring that attaches between the maxillary molar and the mandibular canine. It is designed to rest in the vestibule making it impervious to occlusal damage and allowing for good hygiene. The spring's open helical loop is twisted like a 'J'hook into the mandibular arch wire. On the maxillary end a special oval tube serves as the maxillary first molar attachment. The spring can be secured to the new tube with a stainless steel ligature. The new tube simplifies adjustment and thus the position of the tube in the vestibule. In opening and closing movements, the lower helical attachments hinges on mandibular arch wire through an arc of about 90º.

The Super Spring II provides a moderate, continuous distalizing force with a simultaneous intensive mechanics over a wide range of mandibular movement.

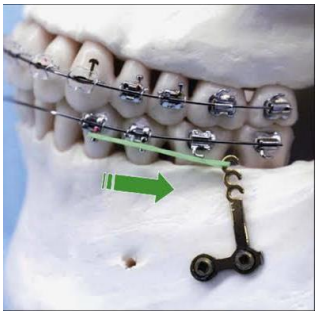
Implant Supported Distalization

Karaman 2002, used an implant-supported modified distal jet appliance which had the advantages of implants and intraoral distalization appliances, and assessed its effect on dentofacial structures in his study. Upper first molars were banded with molar bands that had palatal tubes. An anchorage screw which was 3mm in diameter and 14 mm in length was placed at the anterior palatal suture,2-3mm posterior to the incisal canal under local anesthesia. Anchor wires, 0.8 mm in diameter were soldered to the tubes for occlusal rests on the first premolars. The 0.9-mm wire extended through each tube, ending in a bayonet bend that was inserted into the palatal tube of the first molar band.

For application of force, Niti open-coil springs were adjusted. The appliance was attached to the anchor premolars and implant using a light-cured composite adhesive. The screw was removed without anesthesia and the patient reported no discomfort during the removal. Maxillary molar moved distally 5mm after 4 months of treatment and intruded by 2mm without movement of premolars. Upper incisor position, madibular plane angle and lower anterior facial height remained the same. The main advantages of the appliance are its stability against rotational movements. Adequate distal movement of the molar tooth was achieved without the loss of anchorage. Irritation of the palatal mucosa and gingival hyperplasia didn't occur because the patient could maintain optimum oral hygiene.

Byloff *et al.,* 2000 To avoid mesial movement of anchor teeth, extraoral anchorage such as headgears and intraoral Nance holding arches are commonly used. Advances with implants have made it possible to use them as a means of anchorage in adult orthodontic patients. But with orthodontic patients, when only the question of anchorage must be addressed, the retro molar area or the palate as implant locations are preferred because they do not interfere with orthodontic tooth movement. The histomorphology of the palatal bone shows that the median palatal region is the best location for an endosseous implant.

Skeletal Anchorage System (SAS)



It was introduced by Sugawara & Umemori, in 2004. The skeletal anchorage system (SAS) consists of titanium anchor plates and monocortical screws that are temporarily placed in either the maxilla or the mandible, or in both, as absolute orthodontic anchorage units, distalization of the molars has been one of the most difficult biomechanical problems in traditional orthodontics, particularly in adults and in the mandible, However, it has now become possible to move molars distally with the SAS to correct anterior cross bites, maxillary dental protrusion, crowding, and dental asymmetries without having to extract premolars. Skeletal anchorage system does not interfere with tooth movement; Therefore, it is possible to distalize the mandibular molars with anchor plates placed at the anterior the mandibular ramus or mandibular body.

Conclusion

Distalizing teeth has always been a challenge to orthodontist of which molar distalization is most difficult. Class II molar relationship can be corrected by several methods. One possibility apart from extraction is by distalizing to create space in the lateral segments for retraction of cuspid and anterior teeth. This type of mechanotheraphy is typically used in patient in maxillary skeletal and dento alveolar protrusion. Many appliances have been proposed for distalizing each having their advantages and disadvantages. The main drawback of extra oral approach is the patient compliance. This pitfall has been overcome by the wide range of appliances that are available for distalisation and the choice depends on the clinician how and what they want to use.

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