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CASE REPORT

CANT CORRECTION USING YIN-YANG WIRE: A CASE REPORT

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ABSTRACT

Background: The aim of this paper is to illustrate the use of Yin-Yang wire for the correction of occlusal cant. ***Case report:*** Use of Yin-Yang wire for correcting occlusal cant in an adult individual is illustrated. Patient was successfully treated and the dental occlusal cant was fully corrected. ***Conclusion:*** Yin-Yang wire fabricated using 17X25 TMA wire can be used as a successful treatment option for correcting dental occlusal cant in an adult patient thereby improving smile esthetics.

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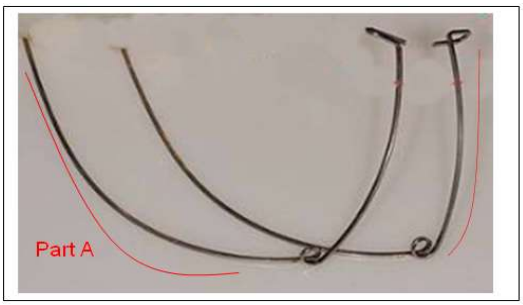
INTRODUCTION

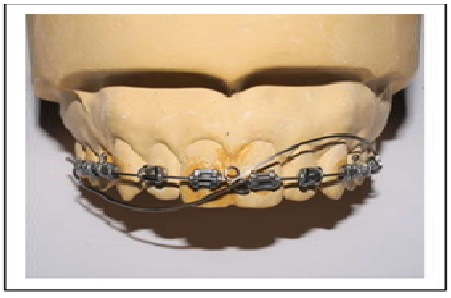
Occlusal plane canting is one characteristic that must be evaluated in any assessment of smile aesthetics. It describes the vertical position of the teeth when the left and right sides are different and this is defined as the rotation upwards or downwards in the transversal plane of one side over the other, basically the "Roll deformity." An occlusal cant could be due to an asymmetric pattern of skeletal and/or dentoalveolar development. It also could be iatrogenic due to inappropriate orthodontic treatments.

Orthognathic surgery combined with surgical orthodontics has been a treatment of choices for the correction of an occlusal cant. In recent years, temporary anchorage devices (TADs) have been applying extensively for the treatment of an anterior or posterior occlusal cant using a range of different biomechanics without orthognathic surgery. Depends upon whether skeletal or dental cant various treatment modalities can be employed. This case report demonstrates the use of first generation Yin-Yang wire made of 17X25 TMA wire for the correction of dental occlusal cant in an adult individual.

FABRICATION OF YIN-YANG WIRE



FIRST GENERATION USING



17X25 TMA WIRE

Frontal and Oblique view

A Case Report

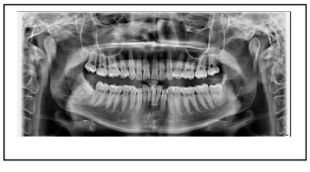
A 22 yrs old female patient came to our department with a chief complaint of irregularly arranged upper and lower teeth and also, she is not satisfied with her smile. On extra oral examination she has convex profile, posterior divergence, symmetrical face, mesomorphic build with athletic body type and mesocephalic head with incompetent lips and non-consonant smile arc. She had a history of orthodontic treatment 6 yrs back with upper first premolars extraction. On Intraoral examination, Patient presented with skeletal class II base with underlying angle's class II molar relation with proclined upper and lower anterior crowding. Patient noticed occlusal cant towards right side and is of dental origin.

Treatment Objectives

- Correction of lower anterior crowding.
- Correction of occlusal cant.
- Achieving esthetic smile.

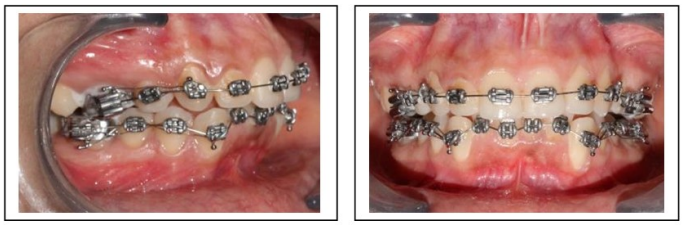
Treatment plan: Since this case is a retreatment case with upper premolars extraction, lower anterior crowding is planned to relieved by proximal stripping and occlusal cant correction using Yin-Yang wire. The appliance used is PEA MBT mechanotherapy in 0.022 SLOT.

PRE-TREATMENT EXTRA ORAL PHOTOGRAPHS

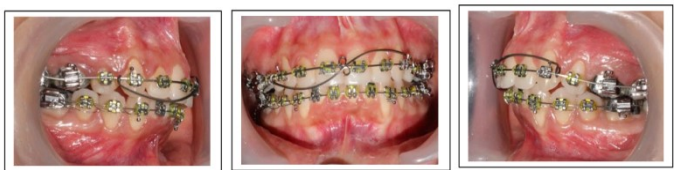


PRETREATMENT RADIOGRAPHS

TREATMENT PROGRESS PHOTOGRAPHS



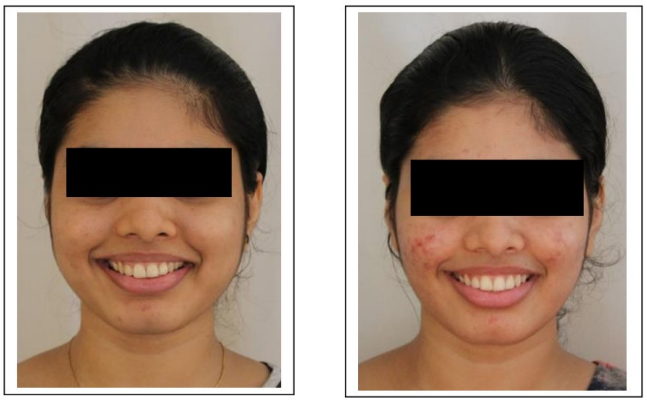
Upper and lower bonding with 0.014 NiTi wire



After initial levelling and alignment, Yin-Yang wire is engaged in 17X25 NiTi main arch wire

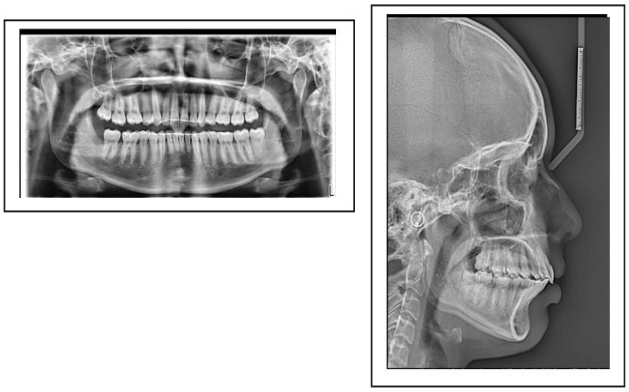
COMPARISON

Post treatment photographs after cant correction

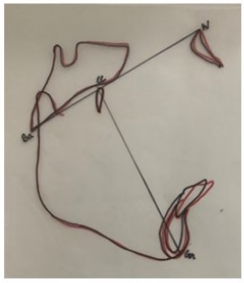


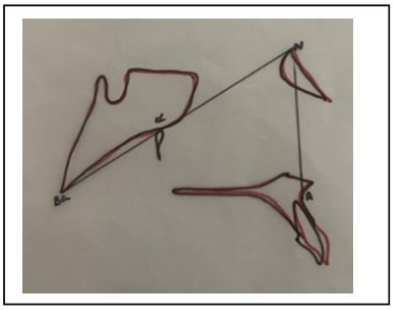
PHOTOGRAPHS

Post treatment radiographs



SUPER IMPOSITIONS





CONCLUSION

Occlusal plane canting in the vertical plane is one of the parameters affecting smile esthetics and originates from facial asymmetry and/or vertical position asymmetry of the right and/or left quadrants of the dental arches without facial asymmetry.

The purpose of this report was to present an innovative Archwire called Yin-Yang Archwire for a simple and easy correction of an occlusal cant.

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