CLASS II DIV 2 MALOCCLUSION

Class II div 2: it can be defined as the advancement of the upper first permanent molar about of the half of cusp or a cusp for the lower first permanent molar with lower incisal edges occlude posterior to the cingulum plateau of upper incisors and the upper central incisors are retroclined with a minimal overjet and usually with increased overbite, and the lateral incisors are at an average angulation or are proclined.

Etiology:

1. Skeletal factor.
2. Soft tissue factor.
3. Dental factor.

Skeletal and dental factors similar to class II 1 malocclusion but the muscular factor show fewer variations . There is a low gonial angle giving rather square facial appearance, the lower facial height is reduced, the lower lip line will effectively be higher relative to the crown of the upper incisors (more than the normal one-third coverage). A high lower lip line will tend to retrocline the upper incisors. In some cases the upper lateral incisors, which have a shorter crown length, will escape the action of the lower lip and therefore lie at an average inclination, whereas the central incisors are retroclined. Class II division 2 incisor relationships may also result from bimaxillary retroclination caused by active muscular lips

- If there is crowding of upper dental arch, the upper laterals or canines may be proclined in front of the lower lip function, there is commonly pronounced labio-mental groove beneath the lower lip.

The incisors position in class II division 2:

The retroclination of incisors and deep incisal overbite are the main features which warrant in class II 2, this will lead to:

1. Trauma in both upper and lower gingiva.
2. Excessive vertical development of anterior dentoalveolar segments…??
3. Small lower facial height.

The incisal overjet is not usually increased except in the more severe class II 2 with class II skeletal relationship.

Treatment objectives and limitations:

a- Relief of crowding and local irregularities.

b- Relief of anterior gingival trauma and correction of incisal inclinations.

c- Correction of class II relationships.

The relief of anterior gingival trauma necessitates movement of the incisor teeth to a position where the lower incisor contacts the palatal surface of the upper incisor in occlusion. This can only be brought about by reduction of the inter-incisal angle.

The limiting factors to this treatment are the musculature of the lower lip and the degree of class II skeletal discrepancy. If the lower lip line is high, proctination of the upper anterior segment by simple tipping movements is not possible. If there is a severe class II skeletal relationship then the lower anterior segment can not be proclined sufficiently to meet the upper teeth.

Treatment:

Stable correction of a Class II division 2 incisor relationship is difficult as it requires not only reduction of the increased overbite, but also reduction of the inter-incisal angle which classically is increased. Re-eruption of the incisors and therefore an increase in overbite is to be resisted, the inter-incisal angle needs to be reduced, preferably close to 135', so that an effective occlusal stop is created, the inter-incisal angle could be corrected by:

1. Torque of the incisors roots palatally in upper and lingually in lower by fixed orthodontic appliance.
2. The upper centrals can be proclined by removable appliance, and followed by the use of a functional appliance to reduce the resultant overjet and achieve intermaxillary correction but this method is done for the growing patients.

3. Proclination of the lower labial segment is helpful in reducing both over-bite and the inter-incisal angle.
4. A combination of the above approaches.

The treatment approach for class II div 2 malocclusion will depend upon:

1. The aetiology of the malocclusion.
2. The presence and degree of crowding.
3. The patient's profile, their age and their wishes.

Management of Class II div 2 cases

Firstly, the retroclined teeth have to be aligned in a proper labio-lingual direction (in other words, converting the case into a class II div 1) then the treatment sequence remains the same as class II div 1.

The retention phase is particularly important in Class II division 2 mal-occlusions, with regard to the following:

• To prevent an increase in overbite.

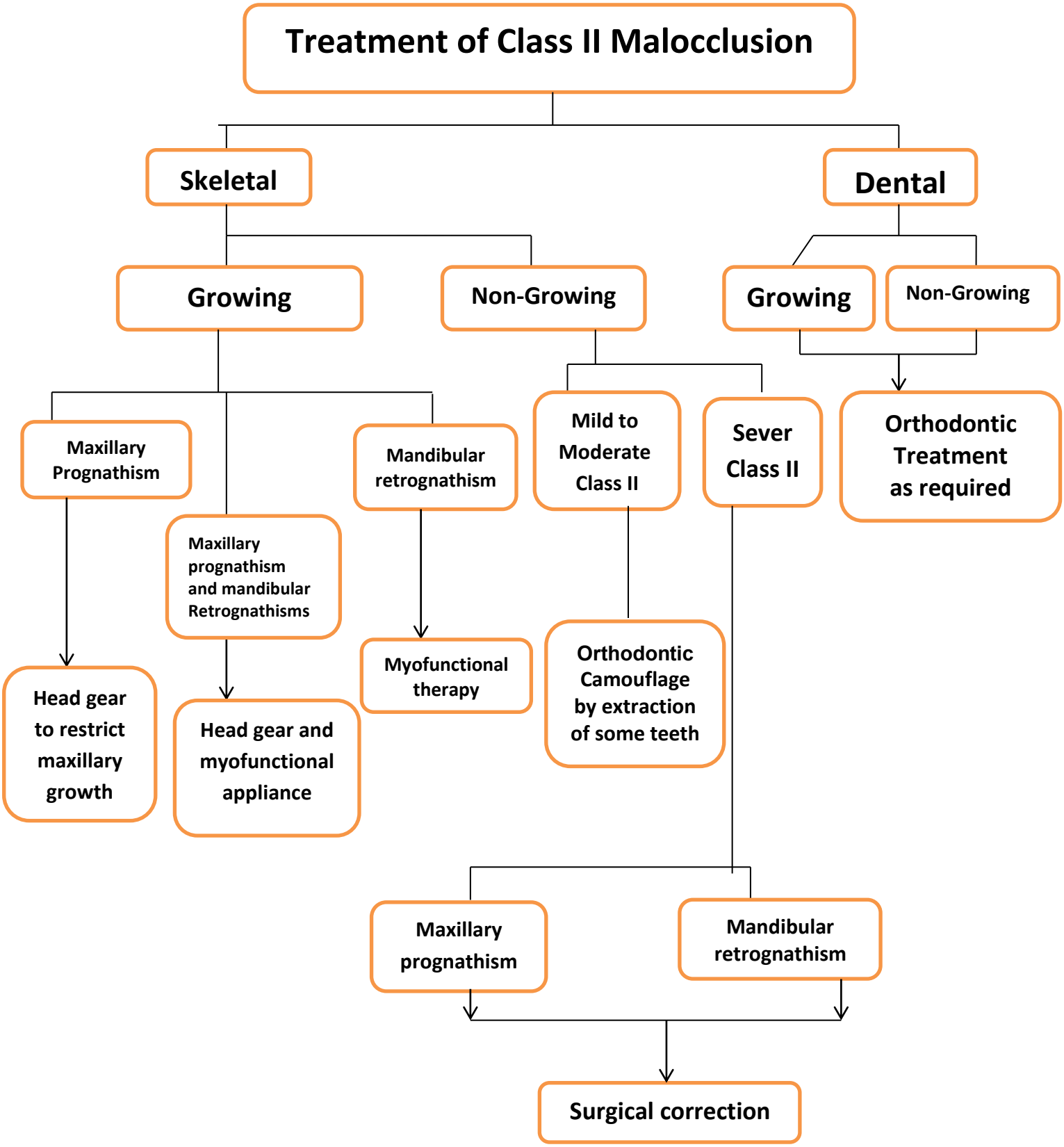
• To retain any de-rotated teeth, for example, the upper lateral incisors.

• To maintain alignment of the lower labial segment, particularly if it has been proclined during treatment.

NOTE: we can start with upper removable appliance then followed by myo-functional or fixed appliance.

Never Dream For Success, Work For It

GOOD LUCK


Treatment of Class II Malocclusion
Skeletal
Dental
Growing
Non-Growing
Growing
Non-Growing
Maxillary Prognathism
Maxillary prognathism and mandibular Retrognathisms
Mandibular retrognathism
Mild to Moderate Class II
Sever Class II
Orthodontic Treatment as required
Head gear to restrict maxillary growth
Head gear and myofunctional appliance
Myofunctional therapy
Orthodontic Camouflage by extraction of some teeth
Maxillary prognathism
Mandibular retrognathism
Surgical correction