Correction of the vertical problems with TADs
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This lecture will be presented the rationale and biomechanics for the correction of
the vertical problems with mini screws. By using mini-screw implants as anchorage,
it is possible, to produce three dimensional movements of the teeth without patient’s
compliance and side effects. Furthermore, the range of orthodontic tooth movement
is significantly broadened and treatment time is also shortened.
Attendees of this lecture will be able to manage the open bite, deep bite and facial
asymmetry efficiently with mini-screws. The relapse rate after intrusion of the
posterior teeth and the way how to reduce the relapse will be described. This lecture
will be presented following these five topics.

1. **Intrusion of Posterior. teeth**

Two skeletal open bite correction cases will be introduced with the the intrusion
of maxillary posterior. teeth by using TADs. Diagnosis, and treatment planning,
and treatment mechanics of these cases will be presented. The rationale of
molar intrusion to correct the skeletal open bite will also be presented.

2. **Intrusion of Occlusal Plane**

Changes of the total occlusal plane is possible without surgery. Treatment
planning and treatment mechanics will be introduce with the treated cases.

3. **Correction of facial asymmetry**

Facial asymmetry correction is one of the challenging area in Orthodontic
practice. The possibility for facial asymmetry correction with TADs is now
increased. Precise Treatment planning and clinical biomechanics will be
introduced for correction of facial asymmetry

4. **Comparison of molar intrusion versus orthognathic surgery**

Advantages and disadvantages of molar intrusion versus orthognathic
surgery for correction of skeletal openbite will be discussed with the clinical
cases. Long term follow up result(10years) after molar intrusion will be
introduced. Indications for molar intrusion and orthognathic surgery will also
be presented.

5. **Stability after molar Intrusion**
The stability is one of the big concerns after skeletal open bite correction. Stability after molar intrusion and orthognathic surgery will be discussed. According to the 3 years follow up study (by our group) shows that the relapse rate after molar intrusion using TADs is:

1) On the maxillary molar-- the relapse rate was 18.8%

2) On the mandibular molar-- it showed 27 to 30 % (reported by Junji Sugawara, et al)

In summary, the patients with anterior open bite, treated with Le Fort I osteotomy, or TADs exhibited skeletal and dental stability. In order to compensate this relapse, Overcorrection and long term retention are needed. We can choose between orthognathic surgery or Molar intrusion for the open bite correction. If the pt's skeletal discrepancy is large, surgery is recommended. In terms of stability, 10-20 % of relapse by surgery and 20-30 % of relapse by Tads were reported. prudent diagnosis and careful treatment planning is essential for the successful results.