

CHAPTER 6

Conclusion

According to this FEM study, the following conclusions can be drawn:

1. The two-mini-screw anchorage design has better von Mises stress distribution in the intruded six maxillary anterior teeth than does the one-mini-screw anchorage design in two aspects:

- 1.1 The stress in the two-mini-screw anchorage design was distributed equally in the four incisors, which the stress in the one-mini-screw anchorage design was concentrated only in the two central incisors.

- 1.2 When the net force of both anchorage designs is equal, the greatest stress in the two-mini-screw pattern is also less than that in the one-mini-screw pattern according to the equally distributed stress. Therefore the teeth in the two-mini-screw anchorage design was not load too much.

From the reason concluded above, the two-mini-screw anchorage design is recommended for the intrusion of six maxillary anterior teeth in clinical setting.

2. The two-mini-screw anchorage design displaces the six maxillary anterior teeth closer to pure intrusion than does the one-mini-screw anchorage design. The one-mini-screw anchorage design intrudes the teeth with proclination and rotation.
3. However, the apical area of the incisal roots was the concentrated stress area and risk to root resorption in both anchorage designs. The intrusion mechanics should be applied with cautious.