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Learning Objectives

After completion of this exercise, the participant will be able to:

1. Describe the mechanics of Biocreative Strategy in extraction treatment.
2. Discuss the application of the zygoma-gear appliance for upper molar distalization.
3. Compare clear aligners to other modalities in adult single-incisor extraction treatment.
4. Contrast the triple intrusion system with other methods of correcting skeletal open bite.

Article 1

Kim, S.H.; Iskenderoglu, N.S.; Kook, Y.A.; Chung, K.R.; and Nelson, G.: *The Biocreative Strategy, Part 3* (pp. 388-407)

1. The C-implant can support heavier forces and moments because it is:
 - a) malleable enough for close adaption to the bone surface
 - b) placed in line with the center of rotation
 - c) partially osseointegrated
 - d) combined with the C-tube microplate
2. The biomechanical tripod consists of two points at the maxillary temporary anchorage devices (TADs) and one in the:
 - a) anterior palate
 - b) anterior tooth segment
 - c) buccal tooth segment
 - d) lower arch
3. The preformed C-wire consists of an .016" × .022" superelastic nickel titanium anterior wire segment and:

- a) two .017" × .025" stainless steel posterior segments
 - b) an .017" × .025" stainless steel overlay wire
 - c) two .016" × .022" superelastic nickel titanium posterior segments
 - d) two posterior retraction hooks
4. A 30° gable bend in the main archwire and a 10mm anterior retraction hook will promote:
 - a) controlled tipping
 - b) translation
 - c) root retraction
 - d) both b and c

Article 2

Patil, H.A.; Kerudi, V.V.; Patil, N.S.; Tekale, P.D.; and Verulkar, A.: *The Zygoma-Gear Appliance for Maxillary Molar Distalization* (pp. 412-418)

5. The zygoma-gear appliance is a modified:
 - a) transpalatal arch
 - b) inner facebow
 - c) J-hook facebow
 - d) lip bumper
6. For absolute anchorage, the zygoma-gear appliance uses:
 - a) osseointegrated micro-implants
 - b) C-tube microplates
 - c) titanium anchor plates
 - d) palatal miniscrews
7. The TADs are placed in the:
 - a) zygomatic process of the maxilla
 - b) zygomatic buttress of the mandible
 - c) anterior palate
 - d) retromolar regions of the maxilla

8. A major advantage of this system is that it can produce:
- upper anterior retraction
 - less molar inclination
 - less incisor tipping
 - all of the above

Article 3

Antelo, O.M.; Meira, T.M.; Miyoshi, C.S.; Allahham, A.; and Tanaka, O.M.: *Single Lower Incisor Extractions in Adult Invisalign Patients* (pp. 419-426)

9. An adult patient considered for extraction of a single lower incisor should meet all of the following criteria except:
- Class I molar relationship
 - moderate crowding of the lower incisors
 - acceptable soft-tissue profile
 - no tooth-size/arch-length discrepancy
10. In an adult Class I patient with a harmonious profile, lower crowding can be effectively corrected by either a lower incisor extraction or:
- two premolar extractions
 - interproximal reduction
 - lower arch expansion
 - upper molar distalization
11. In the absence of any Bolton discrepancy, closure of a lower incisor extraction space can cause:
- excessive overjet
 - a relapse of crowding
 - anterior open bite
 - any of the above
12. In the refinement phase, the patient shown here changed aligners every:

- week
- two weeks
- 10 days
- 17 days

Article 4

Gökalp, H.; Efendiyeva, R.; Bilgili, Ö.; and Efe, E.: *Treatment of Skeletal Class II Open Bite with the Triple Intrusion System* (pp. 427-438)

13. Skeletal open bite is usually characterized by downward and backward rotation of the mandible and by:
- vertical overgrowth of the maxilla
 - forward placement of the maxilla
 - a tooth-size/arch-length discrepancy
 - overeruption of the molars
14. The triple intrusion system includes all of the following except:
- a multipurpose implant
 - posterior maxillary cap splints
 - titanium anchor plates
 - palatal miniscrews
15. The vertical height of the upper molars plays an important role in:
- forward placement of the maxilla
 - growth modification
 - anterior rotation of the mandible
 - backward rotation of the mandible
16. The zygomatic buttress is an ideal miniplate anchorage site because of its:
- dense cortical bone
 - proximity to the masticatory musculature
 - distance from the dental roots
 - both a and c