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Learning Objectives

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

1. Discuss nonsurgical options for resolving severe vertical skeletal dysplasia.

2. Prescribe sectional maxillary aligners for Phase I treatment of Class II malocclusions.

3. Describe a device used for simultaneous posterior intrusion and anterior extrusion in open-bite treatment.

4. Use a digital workflow to add expansion capacity to a boneborne rapid palatal expander.

Article 1

Chamberland, S.: *Noninvasive Management of Severe Vertical Skeletal Dysplasia* (pp. 633-648) 1. Long-face syndrome is characterized by any of the following except:

- a) excessive lower anterior facial height
- b) a steep mandibular plane
- c) a vertical proportion of about $\frac{1}{3}$: $\frac{2}{3}$
- d) anterior open bite

2. In patients with severe vertical skeletal dysplasia, double-arch molar intrusion produces results similar to those of:

a) superior repositioning of the maxilla by Le Fort I osteotomy

b) bilateral sagittal split osteotomy

c) Le Fort II osteotomy for treatment of nasomaxillary hyperplasia

d) craniofacial distraction osteogenesis

3. Active intrusion of the anterior teeth is often required during double-arch molar intrusion to avoid:

- a) counterclockwise mandibular rotation
- b) extrusion of the upper incisors
- c) reduction of lower anterior facial height
- d) all of the above

4. If a retrusive chin persists, the vertical relationship can be improved with minimally invasive:

- a) bimaxillary surgery
- b) camouflage orthodontics
- c) bonded composite posterior bite blocks
- d) functional genioplasty

Article 2

Ferris, A. and Rungcharassaeng, K.: *Class II Correction Using Sectional Clear Aligners* (pp. 658-665)

5. The Carriere Motion 3D Class II appliance obtains mandibular anchorage from:

- a) a passive lingual arch
- b) mandibular fixed appliances
- c) a full-coverage thermoplastic appliance
- d) any of the above

6. In the authors' Invisalign protocol, the short initial phase of treatment is used to:

a) achieve upper first-molar distalization and rotation

- b) close spaces mesial to the upper canines
- c) close an anterior open bite
- d) refine the upper alignment

7. Between phases, the initial correction is maintained with:

- a) the last set of aligners
- b) an Essix-type retainer
- c) a transpalatal arch
- d) upper and lower fixed lingual retainers

8. Although the Class II correction achieved with this protocol is mainly dental, some skeletal improvement can be expected in:

- a) facial depth
- b) interincisal angle
- c) Point A
- d) IMPA

Article 3

Barros, S.E.; Chiqueto, K.; Janson, G.; and Janson, M.: *Dual Action Vertical Intra-Arch Technique* (pp. 666-676)

9. Dental open bite is usually associated with any of the following except:

- a) balanced facial pattern
- b) clockwise mandibular rotation
- c) normal or slightly excessive molar height
- d) sucking habits
- 10. A davit is a:

a) small crane-like device for suspending or lowering loads on ships

- b) lifeboat carried on the side of a ship
- c) claw for lifting prizes in arcade games

d) screening test for presumptive identification of opioids

11. The horizontal anchorage segment of the authors' device is attached to the:

- a) vertical slots of orthodontic cross-tubes
- b) continuous stainless steel archwire
- c) slot of a bracket-head mini-implant
- d) midpalatal miniplate

12. The main difference between the Dual Action Vertical Intra-Arch Technique (DAVIT) and the multiloop edgewise archwire (MEAW) technique is that the DAVIT:

a) can be activated to produce maximum posterior intrusion

b) can be used in both arches simultaneously

c) can be used in the late mixed or early permanent dentition

d) does not require anterior vertical elastics

Article 4

Campobasso, A.; Annarumma, F.; Lorusso, M.; Manni, A.; and Battista, G.: *New Intraoral Scanning Technique for a Replacement Miniscrew*-*Assisted Appliance* (pp. 678-682)

13. Miniscrew-assisted rapid palatal expansion (MARPE) is used primarily in:

- a) young children
- b) the mixed dentition
- c) older adolescents and adults
- d) adults who cannot tolerate other devices

14. An initial MARPE appliance may need additional expansion capacity because of:

- a) the severity of palatal constriction
- b) mini-implant tipping during activation
- c) the need to use a small expansion screw due
- to space limitations
 - d) any of the above

15. In the authors' technique, a new intraoral scan is taken with the original MARPE appliance and:

- a) the new MARPE appliance
- b) three-dimensionally printed scan bodies
- c) virtual miniscrews
- d) split models

16. The software used to design the replacement MARPE is:

- a) Appliance Design
- b) Trios 3
- c) Rhinoceros
- d) Romexis