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Learning Objectives

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

1. Discuss the impact of various management methods in contributing to practice growth.
2. Describe the bond-strength advantages of brackets with elastomeric ligature guards.
3. Review diagnostic guidelines for managing Phase II treatment of patients with cleft lip and palate (CLP).
4. Compare clear aligner therapy to other methods for early treatment of anterior open bite and posterior crossbite.

Article 1

Kravitz, N.D.; Vogels III, D.S.; and Vogels, P.B.: *2025 JCO Orthodontic Practice Study, Part 3: Practice Growth and Staff Data* (pp. 781-795)

1. Practice growth over the past two years was:
   a) about the same as in the 2023 Practice Study
   b) greater than in the 2023 Practice Study
   c) well above the expectations reported in 2023
   d) slightly below the expectations reported in 2023
2. The most influential factor cited for a lack of growth since 2023 was:
   a) increased number of dentists doing Invisalign
   b) local economic conditions
   c) low-fee competition
   d) declining number of children in the local population
3. Since the 2023 Study, median annual salaries for full-time chairside assistants increased by:
   a) 4%
   b) 8%
   c) 10%
   d) 13%
4. Variables with statistically significant relationships to new-patient consultations included all of the following except:
   a) in-depth analysis of practice activity
   b) measurement of case acceptance
   c) expanding practice hours
   d) employing full-time treatment coordinator

Article 2

Mehar, S.; Husain, S.; and Parameswaran, R.: *Shear Bond Strength of Orthodontic Brackets with Elastomeric Ligature Guards* (pp. 796-799)

5. "Bumper ligatures" incorporate:
   a) elastomeric pads molded into the rings on the incisal side of bracket tie wings
   b) bite planes mounted perpendicular to the occlusal forces
   c) crib-like extensions to prevent forward tongue posturing
   d) hooks for attachment of elastics to temporary anchorage devices
6. Compared to brackets with conventional elastomeric ligatures, this study found the shear bond strength of brackets with elastomeric ligature guards to be:
   a) slightly less
   b) about the same
   c) twice as high
   d) nearly three times higher

7. In avoiding occlusal interference, the elastomeric ligature with occlusal guard operates on a principle similar to that of:
   a) conventional elastomeric ligatures
   b) lingual brackets with built-in bite planes
   c) clear aligners with buccal cutouts
   d) occlusal stabilization splints
8. Elastomeric ligature guards can avoid the need to use:
   a) ceramic brackets
   b) tongue cribs
   c) posterior bite turbos
   d) all of the above

Article 3

Lowe, K.M.; Schuster, L.; Oberoi, S.; Zinn, I.M.; and Li, A.: *Orthodontic Management of Patients with Cleft Lip and Palate: Phase II Treatment* (pp. 800-807)

9. The likelihood that a CLP patient will require orthognathic surgery to correct maxillary hypoplasia depends on all of the following factors except the:
   a) severity of the cleft
   b) number and success of previous surgeries
   c) patient's age
   d) inherent midfacial growth potential
10. In CLP patients with missing lateral incisors and mild maxillomandibular discrepancies, the best treatment option is usually to:
   a) maintain space for lateral incisor restorations
   b) perform symmetrical lower extractions
   c) wait until growth is complete
   d) perform orthognathic surgery during adolescence
11. In CLP patients with anterior crossbite due to moderate maxillary retrusion, the ideal time for bone-anchored maxillary protraction is:
   a) as young as possible
   b) during early adolescence
   c) after the pubertal growth spurt
   d) in adulthood
12. In severe Class III CLP patients awaiting orthognathic surgery, Phase II treatment goals should be limited to:
   a) correction of maxillary hypoplasia
   b) protraction headgear therapy
   c) space maintenance for future restorations
   d) specific orthodontic problems that will be difficult to correct at skeletal maturity

Article 4

Oltramari, P.V.P.; Colares, C.C.; Scudeller Bossay, B.C.; Bespalez Neto, R.; and Fernandes Poleti, T.: *Early Treatment of Anterior Open Bite and Posterior Crossbite Using Clear Aligners* (pp. 818-826)

13. Anterior open bite is associated with all of the following etiological factors except:
   a) deleterious oral habits
   b) transverse maxillary asymmetry
   c) respiratory dysfunction
   d) genetic components
14. In mild to moderate cases of anterior open bite associated with posterior crossbite, clear aligners offer biomechanical advantages including:
   a) control of vertical and transverse movements
   b) a bite-block effect limiting extrusion or promoting intrusion of posterior teeth
   c) modification of habits such as tongue interposition
   d) all of the above
15. In the case shown here, tongue spurs were created by modifying:
   a) double-overlapping faux attachments on the lingual surfaces of the lower incisors
   b) rectangular attachments with cervical-facing bevels on the upper incisors
   c) rectangular attachments on the upper and lower canines
   d) bite ramps on the palatal surfaces of the upper incisors
16. Dentoalveolar expansion to correct the posterior crossbite was performed using the:
   a) "en masse expansion" protocol
   b) "surgery first" protocol
   c) "molars move first" protocol
   d) "faux attachment" protocol