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Learning Objectives

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

1. Outline trends in orthodontic economics and practice administration over the past two years.
2. Contrast a “surgery first” approach with other treatment protocols for patients with obstructive sleep apnea (OSA).
3. Compare clear aligners with fixed appliances for the treatment of young patients with Class II, division 2 malocclusions.
4. Discuss the possibility of external cervical root resorption after orthodontic extraction treatment involving periodontal ligament distraction (PLD).

Article 1

Keim, R.G.; Vogels, D.S. III; and Vogels, P.B.: *2021 JCO Orthodontic Practice Study* (pp. 591-606)

1. Between the 2019 and 2021 surveys, declines were recorded in all of the following categories of median responses except:
 - a) gross income
 - b) net income
 - c) active cases
 - d) operating expenses
2. A statistically significant difference was found according to years in practice for:
 - a) gross income
 - b) net income
 - c) overhead rate
 - d) child fee
3. The practice-building category ranked least effective by respondents was:

- a) expand services
 - b) paid advertising
 - c) new-patient incentives
 - d) internal referrals
4. The percentage of respondents who reported being “too busy to treat all persons requesting appointments” was:
 - a) the lowest ever
 - b) the highest ever
 - c) the lowest since the 2001 Study
 - d) higher than the percentage who reported being “not busy enough”

Article 2

Aristizábal, J.F. and Martínez-Smit, R.: “*Surgery First*” Approach as an Alternative for Maxillo-mandibular Advancement in Patients with Obstructive Sleep Apnea (pp. 607-616)

5. OSA is diagnosed when the apnea-hypopnea index (AHI) is:
 - a) less than 0
 - b) less than 5
 - c) greater than 5
 - d) greater than 50%
6. OSA has been associated with all of the following except:
 - a) increased cardiovascular risk
 - b) enlarged prostate syndrome
 - c) metabolic syndrome
 - d) excessive daytime sleepiness
7. The “gold standard” for assessing sleep disorders is:
 - a) polysomnography
 - b) cone-beam computed tomography

- c) a home sleep apnea test
 - d) continuous positive airway pressure
8. Contraindications for the “surgery first” approach in treating patients with OSA include:
- a) severe occlusal instability
 - b) a severe AHI score
 - c) molar roots that would interfere with the osteotomy cut
 - d) both a and c

Article 3

Jiang, Q.; Mei, L.; Wang, H.; Ma, Q.; and Li, H.: *Mesialization of Mandibular Molars with Clear Aligners in a Young Class II, Division 2 Patient* (pp. 617-626)

9. Patients undergoing premolar extractions may not be considered suitable candidates for clear aligner therapy because the aligners cannot:
- a) keep the teeth upright during space closure
 - b) move the teeth a sufficient distance
 - c) control incisor torque
 - d) all of the above
10. Between the ages of 16 and 18, overall mandibular growth is about:
- a) twice overall maxillary growth
 - b) three times overall maxillary growth
 - c) the same as overall maxillary growth
 - d) half of overall maxillary growth
11. The Invisalign G6 system is specifically designed for:
- a) Class II, division 2 cases
 - b) first-premolar extraction cases
 - c) teenage patients
 - d) patients with severe crowding
12. If unwanted tipping occurs during clear aligner therapy, the orthodontist should consider using:

- a) a refinement stage
- b) Power Ridges
- c) shorter aligner change intervals
- d) auxiliaries such as buttons, hooks, or elastics

Article 4

Valladares-Neto, J.; Evangelista, K.; and Silva, M.A.G.: *External Cervical Resorption after Distraction of the Periodontal Ligament* (pp. 634-644)

13. PLD can be used to promote rapid canine retraction after:
- a) palatal expansion
 - b) premolar extractions
 - c) molar extractions
 - d) piezocision
14. Pulp canal obliteration (PCO) is commonly related to:
- a) loss of alveolar bone
 - b) premolar extractions
 - c) trauma
 - d) severe crowding
15. External cervical resorption (ECR) is often underestimated by:
- a) periapical radiographs
 - b) panoramic radiographs
 - c) cone-beam computed tomography
 - d) both a and b
16. Risk factors for ECR may include any of the following except:
- a) dental trauma
 - b) orthodontic tooth movement
 - c) premolar extractions
 - d) surgery close to the cemento-enamel junction