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Learning Objectives

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

1. Discuss trends in JCO Orthodontic Practice Studies since 1981.
2. Fabricate a spring for eruption of impacted canines.
3. Contrast various nonsurgical options for correction of high-angle Class III cases.
4. Describe the potential applications of two extra-alveolar sites for insertion of long mini-implants.

Article 1

Keim, R.G.; Gottlieb, E.L.; Vogels, D.S. III; and Vogels, P.B.: *2017 JCO Orthodontic Practice Study* (pp. 639-656)

1. Compared to the 2015 Practice Study, median net income increased by:
 - a) 3%
 - b) 5%
 - c) 11%
 - d) 20%
2. The percentage of respondents who adjusted their fees every 12 months was the same (38%) as the percentage of those who:
 - a) adjusted fees every six months
 - b) adjusted fees every 24 months
 - c) adjusted fees every 36 months
 - d) did not adjust fees regularly
3. The external marketing method rated most effective in improving profits was:
 - a) Facebook
 - b) Twitter
 - c) videos on the practice website

- d) practice newsletter
4. Patients were the greatest single source of referrals for:
 - a) 30% of the respondents
 - b) 40% of the respondents
 - c) 54% of the respondents
 - d) 100% of the respondents

Article 2

Çelebi, F. and Biçakçi, A.A.: *The Shoulder Spring for Eruption of Impacted Canines* (pp. 657-660)

5. In patients with impacted canines, the teeth with a particularly increased risk of root resorption are the:
 - a) central incisors in the same arch
 - b) adjacent lateral incisors
 - c) impacted canines
 - d) adjacent first premolars
6. The authors' Shoulder Spring is fabricated from:
 - a) .016" Australian wire
 - b) .024" Australian wire
 - c) .012" nickel titanium wire
 - d) .016" nickel titanium wire
7. The spring is activated by connecting it from the impacted canine to:
 - a) a transpalatal arch
 - b) a segmental posterior archwire
 - c) the main working archwire
 - d) the first-molar sheath
8. Advantages of the Shoulder Spring over other appliance designs include:
 - a) inclusion of more posterior teeth in the anchorage unit
 - b) avoidance of force on the lateral incisor

- c) reduced need for patient compliance
- d) all of the above

Article 3

Maruo, I.T.; Fernandes, F.; and Maruo, H.: *Lower First-Molar Extractions and Directional Forces in High-Angle Class III Treatment* (pp. 667-676)

9. In treatment of high-angle Class III cases after the pubertal growth phase, unsatisfactory results have been associated with all of the following except:

- a) a forward-positioned mandible
- b) excessive ramal length
- c) large mandibular length
- d) an obtuse gonial angle

10. The most decisive parameter in distinguishing between adult Class III patients who could be successfully treated by orthodontic treatment alone and those who require orthognathic surgery is the:

- a) nasolabial angle
- b) ANB angle
- c) Wits appraisal
- d) gonial angle

11. The lower first molars were selected for extraction in this case instead of the first premolars because:

- a) this would tend to produce a closing rotation of the mandible
- b) substantial changes were needed in the upper lip
- c) the patient's pretreatment cephalometric analysis had indicated the need for surgery
- d) all of the above

12. Klontz's recommendations for treatment of high-angle cases include all of the following except:

- a) the lower incisors must be upright over their bony support

- b) anterior facial height must be controlled
- c) any clockwise mandibular rotation must be prevented
- d) the posterior vertical dimension must be controlled

Article 4

Villegas, C.; Azami, N.; Nanda, R.; and Uribe, F.A.: *The Zygoma and the Symphysis: New Extra-Alveolar Sites for Long Mini-Implants* (pp. 680-689)

13. Advantages of extra-alveolar long mini-implants over other forms of skeletal anchorage include:

- a) the ability to anchor direct forces
- b) minimal invasiveness of the surgical insertion procedure
- c) versatility of mechanical delivery
- d) all of the above

14. The authors' zygomatic mini-implants are available in lengths of:

- a) 10-11.5mm
- b) 25-40mm
- c) 15-35mm
- d) 35-52.5mm

15. The pilot drill for a symphyseal mini-implant should be angulated at about:

- a) 20° to the facial midline
- b) 60° to the facial midline
- c) 20° to the occlusal plane
- d) 60° to the occlusal plane

16. The primary clinical application of long zygomatic and symphyseal mini-implants is in:

- a) lower molar protraction
- b) maxillary prosthetic rehabilitation of patients with significantly atrophic ridges
- c) orthopedic Class II traction
- d) orthopedic Class III traction