Learning Objectives

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

1. Discuss the effect of root development on orthodontic traction of dilacerated incisors.
2. Contrast a new self-ligating bracket system with other self-ligating appliances.
3. Combine ClinCheck projections with esthetic-treatment-planning software.
4. Compare various methods of correcting unilateral posterior crossbite in young patients.

Article 1

Lei, L.; Yan, F.; Li, H.; and Li, H.: Treatment of Dilacerated Incisors in Early and Late Stages of Root Development (pp. 497-507)

1. In the authors’ sample, a tooth with two-thirds of its root formation (stage 8) was considered:
   a) early in dental age
   b) late in dental age
   c) inappropriate for early orthodontic intervention
   d) a more likely candidate for root-canal therapy or apicectomy
2. The etiology of dilaceration:
   a) involves mechanical trauma to the calcified portion of a developing tooth
   b) involves the avulsion or intrusion of an overlying deciduous predecessor
   c) is unclear
   d) is idiopathic
3. The compromised root development of dilacerated incisors may be explained by:
   a) an injury to the permanent tooth germ during odontogenesis
   b) a disruption in growth of the Hertwig epithelial root sheath
   c) a labial crown rotation that brings the Hertwig epithelial root sheath too close to the palatal cortical bone
   d) any of the above
4. If an impacted incisor is not treated at an early stage of development, subsequent treatment may be adversely affected by:
   a) an injury to the permanent tooth germ during odontogenesis
   b) migration of the adjacent teeth
   c) temporary inhibition of root development
   d) any of the above

Article 2

Chen, S.; Chen, G.; and Xu, T.: Clinical Application of the PASS Technique (pp. 508-515)

5. Low wire-bracket friction is most advantageous during:
   a) initial alignment
   b) torque expression
   c) extraction treatment
   d) finishing stages
6. When the anterior teeth are engaged with a conventional preadjusted appliance:
   a) a protective moment is generated on the molar
   b) a counterclockwise tip-forward moment is created on the molar
   c) the anterior overbite is maintained
d) a piggyback wire should be used to promote bite opening
7. With the multilevel low-friction (MLF) bracket, as the archwire progresses to a larger size:
   a) the ligature contacts the archwire for better expression of the bracket prescription
   b) the constricted cervical area keeps the ligature from compressing the archwire
   c) the double-tube design facilitates the use of a piggyback wire
   d) the vertical slot enables optimal sliding mechanics
8. Maintenance of the physiological curve of Spee is emphasized in the PASS technique because:
   a) Class II adolescent patients are the most predisposed to anchorage loss
   b) gentle forces from lip pressure and tissue regeneration of extraction sites can assist in tooth movement
   c) this normal occlusal curvature is required for an efficient masticatory system
   d) all of the above

Article 3
Levrini, L.; Tieghi, G.; and Bini, V.: *Invisalign ClinCheck and the Aesthetic Digital Smile Design Protocol* (pp. 518-524)
9. The esthetic plane is:
   a) perpendicular to the center of the angle between the Camper and Frankfort planes
   b) a Photoshop modification of Coachman’s esthetic digital smile design
   c) a way to assess lip movement when the patient is speaking and smiling broadly
   d) parallel to the Frankfort horizontal plane
10. A micro-esthetic analysis is used to evaluate the patient’s:
    a) smile
    b) face
    c) teeth
    d) profile
11. The process that converts the patient’s actual measurements from analog to digital form is known as:
    a) Aesthetic Digital Smile Design
    b) Analogic Transfer System Communication
    c) Face Analogic Transfer Support
    d) Digital Dental Image Distortion

Article 4
13. An associated functional shift of the mandible is observed in:
    a) 8.7% of patients with unilateral posterior crossbite (UPC)
    b) 23.3% of patients with UPC
    c) 60% of patients with UPC
    d) 80% of patients with UPC
14. UPC may be caused by any of the following except:
    a) a skeletal disproportion between the maxilla and the mandible
    b) an asymmetrical mandibular morphology
    c) a discrepancy in transverse dental arch width
    d) a functional shift
15. Maxillary expansion is contraindicated in a UPC patient with:
    a) a symmetrical archform
    b) a constricted archform
    c) an expanded archform
    d) a symmetrical archform on the crossbite side
16. Early interceptive correction of UPC is recommended to prevent:
    a) permanent establishment of the deformity
    b) negative long-term effects on maxillary-mandibular growth and development
    c) asymmetrical development of orofacial structures and consequent remodeling of the TMJs
    d) all of the above