

CONTINUING EDUCATION

The East Carolina School of Dental Medicine will award 3 hours of Continuing Education credit for reading this issue of JCO and answering at least 12 of the following 16 questions correctly. Take this test online at www.jco-online.com (click on Continuing Education); payment of \$25 is required by VISA or MasterCard. The test may be retaken once if not passed on the first attempt. Correct answers will be supplied immediately, along with a printable certificate. Tests will be accessible on the JCO website for 12 months after publication. A subscription to JCO is not required to earn C.E. credits. For information, contact Dr. Neal Kravitz; e-mail: editor@jco-online.com. CER Code: JCO December 2022.

Learning Objectives

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

1. Discuss the use of clear aligners in presurgical orthodontic treatment.
2. Describe the Benefit Direct system for rapid maxillary expansion and protraction.
3. Compare a Ricketts Z sectional arch to other methods of maxillary distalization in Class II treatment.
4. Use a Forsus appliance as anchorage reinforcement during lower-molar protraction in a patient with retained lower second deciduous molars and missing lower second premolars.

Article 1

Parsaei, Y.; Uribe, F.; and Steinbacher, D.M.: *Clear Aligner Therapy and Orthognathic Surgery* (pp. 692-707)

1. The primary goal of presurgical orthodontics with clear aligner therapy is to:
 - a) eliminate dental compensations
 - b) level and align the arches
 - c) relieve any crowding
 - d) all of the above
2. In clear aligner therapy, the digital file of the postsurgical occlusion should be used to order a postsurgical aligner retainer or:
 - a) active aligners
 - b) a removable retainer
 - c) a miniscrew-assisted retainer
 - d) a bracketed appliance for intermaxillary fixation
3. The authors' preferred method for postsurgical

fixation with clear aligners is:

- a) active aligners
 - b) orthodontic bone-anchor screws
 - c) Ivy loops and Erich arch bars
 - d) Kobayashi hooks and wires
4. Immediately after a segmental Le Fort osteotomy, the patient should receive:
 - a) an aligner retainer
 - b) new active aligners
 - c) a U-shaped Hawley-type splint
 - d) a fixed bracketed appliance

Article 2

Wilmes, B.; Becker, K.; Willmann, J.; Tarraf, N.E.; and Drescher, D.: *Maxillary Expansion and Protraction Using Mini-Implants and the Benefit Direct Mechanism* (pp. 708-715)

5. Undesirable dental side effects of conventional toothborne maxillary expanders include all of the following except:
 - a) extrusion of the upper incisors
 - b) buccal tipping
 - c) root resorption
 - d) reduced buccal bone thickness
6. The best quality of cortical bone for mini-implants supporting maxillary expanders is found in the:
 - a) retromolar region
 - b) buccal interradicular areas between the first molars and second premolars
 - c) anterior palate
 - d) distolingual palate
7. In the "appliance first" method, the maxillary expander is placed before the:

- a) temporary anchorage devices (TADs)
 - b) Hybrid Hyrax device
 - c) bracketed appliances
 - d) clear aligners
8. In the Benefit Direct system, the double inner thread of the specially designed ring ensures a rigid connection with:
- a) any mini-implant insertion angle
 - b) a tolerance of as much as 15° in the mini-implant insertion angle
 - c) TADs inserted prior to the Hybrid Hyrax framework
 - d) a mandibular Mentoplate

Article 3

Vasconcelos, P.T.; Vedovello-Filho, M.; Carmo de Menezes, C.; Santamaria-Jr, M.; and Vedovello, S.A.S.: *Effects of the Ricketts Z Sectional Arch in Producing En-Masse Maxillary Distalization in Adult Class II Patients* (pp. 716-724)

9. The Ricketts Z sectional arch incorporates:
- a) one activation
 - b) two activations
 - c) four activations
 - d) six activations
10. The “Z” sections are made of:
- a) .014" nickel titanium wire
 - b) .016" × .016" blue Elgiloy thread
 - c) .016" × .025" TMA wire
 - d) .018" × .030" stainless steel wire
11. In this study, Class I molar relationships were achieved in an average of:
- a) two months
 - b) 6.2 months
 - c) 16 months
 - d) 18.4 months
12. The average en-masse distalization in this study was:
- a) .77mm

- b) 1.64mm
- c) 4.82mm
- d) 12.3mm

Article 4

Antelo, O.M.; Amadi, A.K.; Reyes, A.A.; Meira, T.M.; and Tanaka, O.M.: *Mandibular Molar Protraction with the Forsus Appliance as Anchorage Reinforcement* (pp. 725-733)

13. Treatment of patients with agenesis of the lower second premolars and retained lower second deciduous molars generally involves:
- a) maintenance of the deciduous molars until the end of growth and development
 - b) extraction of the deciduous molars followed by space closure
 - c) extraction of the deciduous molars followed by prosthetic replacement
 - d) any of the above
14. Effects of the Forsus fixed functional appliance include all of the following except:
- a) extrusion of the upper incisors
 - b) distalization of the upper molars
 - c) extrusion of the lower first molars
 - d) proclination of the lower incisors
15. Space closure after extraction of retained deciduous molars with no permanent successors is indicated when the patient exhibits:
- a) lip protrusion
 - b) incisor proclination
 - c) anterior crossbite
 - d) any of the above
16. Agenesis of the lower second premolars is often associated with:
- a) lip protrusion
 - b) a vertical growth pattern
 - c) microdontia of the upper lateral incisors
 - d) gingival recession of the lower incisors