After completing this course, the participant will have:
1. An understanding of the effect of the duration of fixed orthodontic appliances on gingival tissues.
2. A familiarity with the influence of combined orthodontic-periodontic treatment on the levels of inflammatory cytokines in patients with periodontitis.
3. An awareness of any differences among orthodontists’, dentists’, and laypeople’s esthetic perceptions of patient smiles when maxillary canines are extracted for orthodontic treatment.
4. Knowledge concerning the failure rate differences between dual-thread and single-thread temporary anchorage devices used for retraction of the maxillary anterior segment.

Article 1: Gingival enlargement in orthodontic patients: Effect of treatment duration, by Alice Souza Pinto et al
1. The aim of this study was to assess the effect of the duration of fixed orthodontic treatment on gingival enlargement in adolescents and young adults.
True
False
2. The sample comprised 4 groups of 65 subjects each: a control group and groups with 1 year, 2 years, and 3 years of fixed orthodontic treatment.
True
False
3. The authors stated that the use of dental floss was significantly different among the groups, with more patients reporting daily use as the duration of orthodontic treatment increased.
True
False
4. The authors concluded that gingival enlargement increased as the duration of orthodontic treatment increased.
True
False

Article 2: Efficacy of combined orthodontic-periodontic treatment for patients with periodontitis and its effect on inflammatory cytokines: A comparative study, by Jin Zhang et al
5. The purpose of this study was to investigate the effect of inflammatory cytokines on producing periodontitis during orthodontic treatment.
True
False
6. Evaluation of periodontal health was measured by the following tests: probing depth, tooth mobility, plaque index, clinical attachment level, and sulcus bleeding index.
True
False
7. The authors reported that the levels of inflammatory cytokines in gingival crevicular fluid and serum of patients undergoing orthodontic treatment were gradually reduced to normal, and the periodontal status and inflammatory conditions had faster recoveries compared with the basic group.
True
False
8. The authors concluded that combined orthodontic-periodontic treatment had good clinical efficacy in the treatment of periodontitis and could effectively decrease the levels of inflammatory cytokines.
True
False
Article 3: Extraction of maxillary canines: Esthetic perceptions of patient smiles among dental professionals and laypeople, by Badri Thiruvenkatachari et al

9. The purpose of this study was to investigate whether there is any difference in the perceptions of patients’ smiles as judged by orthodontists, dentists, and laypeople by extracting either maxillary canines or lateral incisors with substitution of canines.
True
False
10. The assessor panel comprised 10 orthodontic residents, 10 general dentists, and 10 laypeople.
True
False
11. The authors reported that orthodontists were marginally more critical in their evaluations than laypersons and general dentists.
True
False
12. The authors concluded that no statistically significant difference was found in the smile attractiveness between canine extraction and premolar extraction patients as assessed by general dentists, laypeople, and orthodontists.
True
False

Article 4: Comparison of in-vivo failure of single-thread and dual-thread temporary anchorage devices over 18 months: A split-mouth randomized controlled trial, by Owais Khalid Durrani et al

13. The purpose of this study was to compare the in-vivo failure rates of single-thread and dual-thread temporary anchorage device designs over 18 months.
True
False
14. After placement of the temporary anchorage device, a subject was followed for a minimum of 12 months and a maximum of 18 months to observe failure of the device.
True
False
15. The authors reported that most temporary anchorage devices (50%) failed in the second month after insertion.
True
False
16. The authors concluded that the failure rate of dual-thread compared with single-thread temporary anchorage devices is statistically insignificant when placed in the maxilla for retraction of the anterior segment.
True
False