

After completing this course, the participant will have:

1. An understanding of the midfacial change that occurs with microimplant-supported skeletal expanders.
2. A familiarity with the influence of different sagittal facial patterns on dentofacial transverse widths.
3. An appreciation for the effect of orthodontic tooth movement and other potential risk factors on the interdental alveolar crest levels.
4. Knowledge about how the condylar bone density may vary with age, vertical face height, and horizontal skeletal classification.

Article 1: Midfacial changes in the coronal plane induced by microimplant-supported skeletal expander, studied with cone-beam computed tomography images, by Daniele Cantarella et al

1. The objectives of the study were to evaluate midfacial skeletal changes in the coronal plane and the implications of circummaxillary sutures and to localize the center of rotation for the zygomaticomaxillary complex after therapy with the commonly used hyrax maxillary expander, using high resolution cone-beam computed tomography.

True

False

2. The rate of maxillary expansion was 2 turns per day until the maxillary skeletal width was equal to or greater than the mandibular width.

True

False

3. The authors reported that dental tipping of the molars was similar to that seen with tooth-borne expanders.

True

False

4. The authors concluded that maxillary skeletal expanders efficiently generated midfacial expansion in late adolescent patients.

True

False

Article 2: Three-dimensional evaluation of dentofacial transverse widths in adults with different sagittal facial patterns, by Soonshin Hwang et al

5. The aim of this study was to evaluate the dentofacial transverse dimensions of subjects with different sagittal facial patterns using 3-dimensional cone-beam computed tomography images.

True

False

6. The study's sample comprised 80 adults.

True

False

7. The authors reported that in all classification groups, men had similar transverse widths measured at the maxillary alveolar crest and midroot level as well as maxillary intermolar widths compared with women.

True

False

8. The authors concluded that a relative comparison of Class I, Class II, and Class III subjects showed that dental compensation overcame the transverse skeletal discrepancies in the maxillary posterior segments of the Class II and Class III subjects.

True

False

Article 3: Effect of orthodontic treatment and comorbidity risk factors on interdental alveolar crest level: A radiographic evaluation, by Ronen Zoizner et al

9. The purposes of this study were to evaluate the prevalence and severity of interdental alveolar crest height loss in adult orthodontic patients compared with an untreated control group and to identify comorbidity risk factors for the bone loss (high body mass index scores, high blood pressure, high cholesterol levels, and smoking).

True

False

10. The experimental group comprised 34 adults who had nonextraction orthodontic treatment, and the control group comprised 29 adults with no previous orthodontic treatment.

True

False

11. The authors reported lower blood cholesterol and high-level lipoprotein values in the treatment group compared with the control group.

True

False

12. Even though this study suggested that orthodontic tooth movement per se does not cause attachment loss, the authors recommended periodontal evaluation for adult patients.

True

False

Article 4: Mandibular condyle bone density in adolescents with varying skeletal patterns using cone-beam computed tomography: A potential predictive tool, by Ki-Jun Kim et al

13. The null hypothesis of this study was that there is a difference in the bone density of mandibular condyles in adolescents across various facial height ratios, ANB angle classifications, sexes, and age categories.

True

False

14. The 120 adolescents in the sample were classified into 3 groups according to age and 3 groups according to vertical skeletal heights.

True

False

15. The authors reported that the ANB angle was a significant factor in predicting bone density.

True

False

16. The authors concluded that condylar bone density increased as the facial height ratio decreased and the ANB angle increased.

True

False