

Professional Remarks

Dr. Vanarsdall saw the future of the specialty beyond the straightening of teeth and the creation of a beautiful smile. Slick would often say, “the future of orthodontics is to improve the health of the whole stomatognathic system.”

In 1977, he described the soft-tissue management technique of labially positioned unerupted teeth¹. This classical article was later republished in the same journal, the AJODO, in 2004. He taught us that the number of successfully treated labially positioned teeth can be increased by proper management of the periodontal tissues attached to them. By apically positioning the flap, a portion of keratinized tissue is preserved and protects the marginal integrity of the attachment apparatus. This will also prevent an apical shift of the dentogingival junction on the presence of dental plaque or traumatic tooth brushing. Slick demonstrated that with open exposure, the treatment time is diminished, tooth movement is more controlled with visibility to the change direction of pull, no additional surgical procedures are needed (reuncovering due to multiple debonding of attachments), cystic follicles are prevented and there is a favorable periodontal response². He placed special emphasis on the manipulation of the periodontal tissues while exposing impacted teeth.

He was the first to recognize skeletal relationships that clearly identify patients who are more susceptible to a periodontal breakdown³. He verified that a proper maxillary transverse skeletal relation to the mandible prevented periodontal recession and dehiscence⁴. Slick showed us the value of correcting the transverse skeletal dimension, specifically its positive impact on the periodontal susceptible patient. Even before the era of three-dimensional and cone beam computed tomography, he recognized that proper skeletal expansion changed other skeletal characteristics, leading to overall better system function and longevity⁵. Furthermore, he was a good advocate of early treatment and saw this approach as an opportunity to prevent many complications in the future, by changing the skeletal pattern in three planes of space through guiding the growth and development of young patients, improving the airway and breathing.

Early when temporary anchorage devices (TADs) were available, Slick was first in line to use them. He tested skeletal anchored rapid palatal expander (RPE) appliances more than a decade ago. He demonstrated that with the use of TADs to normalize transverse skeletal discrepancy a clinician could anticipate at least 2-3 mm greater basal expansion than with the use of tooth tissue born RPEs⁶. In addition, he found that the mean value of the basal expansion with the TAD RPE, acrylic based, was 65.04% of the jackscrew activation and produced less molar tipping effect than a regular RPE³.

Certainly, one of the major contributions of his career has been the diagnosis of the transverse dimension⁷. The last paper he final proofed a few weeks before passing, summarizes all his work on the transverse dimension⁸. The manuscript states the four benefits of correcting a transverse skeletal deficiency: (1) improved periodontal health, (2) dental and skeletal stability of the correction, (3) dentofacial esthetics - eliminating negative space, and (4) improved airway resistance. Slick strongly believed that the diagnosis of this dimension must be based on skeletal and not dental components. He was very excited with new skeletal-anchored expanders that are changing the envelope of treatment to include mature patients and avoid certain surgical procedures.

REFERENCES

1. Vanarsdall RL, Corn H. Soft-tissue management of labially positioned unerupted teeth. *Am J Orthod.* 1977;72:53-64.
2. Vanarsdall RL. Efficient management of unerupted teeth: a time-tested treatment modality. *Semin Orthod.* 2010;16:212-21.
3. Vanarsdall RL Jr., Blasi I Jr., Secchi AG. Periodontal-orthodontic interrelationships. In: Graber LW, Vanarsdall RL, Vig KW, Huang GJ, editors. *Orthodontics: current Principles and Techniques.* 6th ed. Louis: Published Elsevier; 2017. p. 621-68.
4. Anzilotti CL, Vanarsdall RL, Balakrishnan M. Expansion and Evaluation of Post-Retention Gingival Recession. Thesis. Philadelphia, PA: University of Pennsylvania; 2002.
5. Vanarsdall RL Jr. Transverse dimension and long-term stability. *Semin Orthod.* 1999;5:171-80.
6. Vanarsdall RL, Blasi I, Evans M, et al. Rapid maxillary expansion with skeletal anchorage vs bonded tooth/tissue born expanders: a case report comparison utilizing cbct, *RMO Clin Rev.* 2012;1:18-22.
7. Betts NJ, Vanarsdall RL, Barber HD, Higgins-Barber K, Fonseca RJ. Diagnosis and treatment of transverse maxillary deficiency. *Int J Adult Orthodon Orthognath Surg.* 1995;10:75-96.
8. Vanarsdall RL Jr., Blasi I Jr. Applying new knowledge to the correction of the transverse dimension. In: Kapila S, Vig KW, Huang GJ, editors. *Anecdote, Expertise and Evidence: applying New Knowledge to Everyday Orthodontics.* Vol. 53. Ann Arbor, MI: Craniofacial Growth Series, Center for Human Growth and Development; 2017. p. 167-93.