Apply new findings to improve patient care

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To introduce this topic I will touch upon the ongoing centennial celebration of the AJO-DO, which turned 100 earlier this year. Of course, more important than a birthday party, are recent changes in the evaluation and publication of current research findings. Over the past few years we have encouraged the establishment of evidence-based practices for the conscientious, explicit, and judicious use of current best evidence when making decisions about the care of our patients: ie, systematic reviews and randomized controlled trials.

With this brief introduction, the clinical treatment of two patients will be reviewed by examining their long-term outcomes. The first patient suffered from Juvenile Idiopathic Arthritis (JIA). When she was examined at the age of 9, condylar growth had ceased and her Class II skeletal relationship was becoming worse with increasing age. This patient was treated as a child and the final outcome was published in 1978 as a case report in the American Journal of Orthodontics. At the time, serious concerns were expressed with the entire procedure. Would her mandibular condyles continue to resorb, affecting the patient’s functional occlusion long-term? Periodic records were accumulated and will now be evaluated as the patient approaches the age of 50. The Class III patient was also treated early and followed for 40 years with periodic exams and documentation. Based upon the long-term outcome, a close look at current literature will reveal whether or not we know how to treat Class III patients with predictable success. Included in this review will be a critical analysis of all evidence.
The details of differing treatment techniques will be discussed as a variety of published studies are evaluated for quality. With each step involved in planning treatment for our patients, opinions of the patient must also be considered carefully before making a final decision. Never has the world of orthodontic specialists witnessed a more dramatic change in the delivery of new research findings. Whether it’s a Case-of-the-Month, selected videos of top-notch authors or the opportunity to blog with other professionals, learning in the next century is sure to be more efficient than ever before.

Figure 1 – JIA facial change long-term

11 yrs 8 mos…..14 yrs 9 mos…..33 yrs 5 mos……49 yrs 10 mos

Figure 2 – Class III long-term change

9 yrs 10 mos……..13 yrs 6 mos…..22 yrs 0 mos…….54 yrs 1 mo