

theless, we used energy chains for some periods for hygienic and esthetic reasons.

Usually, we choose latex elastics for this protocol. The patient can easily change the elastics daily during the treatment period, and, when necessary, intermaxillary elastics can decrease the requirement of additional mini-implant usage.<sup>3</sup>

In the treatment mechanics we used (biocreative therapy), we applied severe gable bends on  $0.016 \times 0.022$ -in and  $.017 \times .025$ -in stainless steel utility archwires to generate anterior torque on the anterior segment of the teeth to resist lingual tipping during en-masse retraction.<sup>6,7</sup> We controlled torque with archwire adjustments. We did not need to resort to larger wires. Torque control was achieved because the vector of force was shifted apically to approximate the center of resistance of the anterior segment. This produced bodily movement without rotational moments.

Thank you for the valuable comments about our case report and also for allowing us to respond to them.

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## Sydney diagnostic system

The Sydney diagnostic system, as reported in the March issue (Moate SJ, Geenty JP, Shen G, Darendeliler MA. A new craniofacial diagnostic technique: the Sydney diagnostic system. *Am J Orthod Dentofacial Orthop* 2007;131:334-42), is a newer concept that avoids radiation exposure for potential orthodontic patients. It is a good attempt at devising a new

diagnostic tool other than the cephalostat. However, it seems to be a complicated, not-so-simple method that is not easily adaptable to every institute around the globe.

It requires formation of individualized jigs for each patient for recoding the cast positions in relation to the patient's photo. It seems to be time-consuming, and it requires good laboratory support. Mastering the procedure for diagnosis on a day-to-day basis would be difficult, and it cannot be used easily for every patient.

Also, it provides only soft-tissue relationships; it gives no information about the patient's skeletal morphology, on which most of our treatment planning is based, especially surgical procedures. So, cephalometry will still be needed.

Because it is new, no norms are available of the various malocclusions groups and races; these might need more than a decade to be established. All institutes might not be able to adapt to this system.

Currently, it seems difficult to replace the age-old procedure of cephalometry with the new Sydney diagnostic system, just as we could not replace the century-old Angle system of classification of malocclusion with any other system; it is still used for reference around the world.

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## What would you choose: Evidence-based treatment or an exciting, risky alternative?

Mark Antosz's letter,<sup>1</sup> "The evidence against evidence-based dentistry" in the May issue and the responses it stimulated from Greg Huang<sup>2</sup> and W.L. Adeyemo<sup>3</sup> should make us ask ourselves why so many practitioners are still hostile to the merits of evidence-based dentistry. Why do they perceive this new therapeutic approach as a threat to the way they practice their specialty? To answer these questions and to support the arguments of Huang and Adeyemo, I should like to emphasize 3 points that I believe to be essential.

First, only a few treatment procedures in orthodontics are based on incontrovertible data. That is why many clinicians think it is too early to use evidence-based methods in daily practice and suggest that we wait until a much larger published database is established. According to Antosz,<sup>1</sup> that could take 1 or 2 generations. I believe it would be an error to postpone a change to evidence-based procedures until the available data were all as incontestable as one would hope. Maintaining a rigorous scientific stance is by no means incompatible with the paucity of currently available research information. When reliable data are incomplete, as we find every day in our practices, the evidence-based approach can help us to deal with uncertainty far better than we can without it. It can assist us in effecting a rapid and efficient assessment of the few reliable facts that are available and then in helping

our patients and their families make the best possible decisions despite our incomplete information.

The second point deals with practitioners who, although admitting the possible theoretical benefit of the evidence-based approach, prefer to confine their therapeutic endeavors to the techniques that have previously "worked well in their hands." The successful outcome of a treatment technique does not, however, prove that it was the most appropriate approach. In other words, the medical response to a request for treatment should be based on an informed selection from the whole ensemble of available therapies and not picked solely because it is the one the practitioner routinely uses. Such a selection process would have the best chance of producing a therapy that would be consistent with the values and the preferences of patients and their families.

Early intervention for Class II malocclusion<sup>4</sup> provides a good illustration of the distinction between effective treatment and the most appropriate treatment. The thousands of Class II patients treated successfully with orthopedic therapies show that functional appliances can correct these malocclusions. But does that prove that they are the most appropriate treatment for patients and their families?

Clearly, the answer is "no" if the only objective of early treatment is to stimulate a long-term increase in length of the mandible. Studies show that 2-stage treatment of Class II malocclusion does not produce any appreciable additional mandibular growth.<sup>5-7</sup>

But the answer would probably be "yes" when other aspects of early treatment are evaluated: eg, the reduction in incidence of root resorption,<sup>8</sup> the lowered risk of trauma to anterior teeth in patients with marked overjet,<sup>9</sup> or when it seems advisable to try to restore a patient's self-esteem as soon as possible.<sup>10</sup>

Using the evidence-based approach, practitioners can determine how well a treatment modality responds appropriately to patients' treatment needs. Thus, far from outlawing the use of functional appliances, the evidence-based approach allows practitioners to include them, along with other therapies, in presenting to patients and their families<sup>11</sup> the possibilities from which, with the help of professional guidance, they can make their decisions.

How would we like to be treated ourselves is the last question I want to pose. Would we want evidence-based treatment, or would we take a chance on an exciting, risky alternative? Such a formulation of the therapeutic choice to a patient might be humorous if the facts didn't so clearly point to just 1 answer. Research studies have consistently shown that an evaluation of results proves that patients receiving evidence-based therapy routinely have better outcomes than those who don't.<sup>12</sup>

Orthodontists are adopting the evidence-based approach less frequently than their colleagues in other medical specialties, probably because we practice in a field where few clinical situations put our patients' lives at risk. In treating most of them, the available therapeutic options function well enough and reliably enough to make them all useful. But this

is no reason to deprive our patients of the benefits of evidence-based treatment, which does not replace our judgment and our experience but supplements them and bridges the gap between clinical research and the daily care we deliver. This new global clinical approach should be steadily infused into every aspect of our daily practices.

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## Friction and loading

The article, "Friction does not increase anchorage loading" (Southard TE, Marshall SD, Grosland NM. Am J Orthod Dentofacial Orthop 2007;131:412-4), and the letter by Halazonetis (Friction might increase anchorage loading. Am J Orthod Dentofacial Orthop 2007;131:699), certainly challenge the orthodontic community. I would like to offer an