THE EDITOR'S CORNER

What Happens?

One of the great unknowns in orthodontics is what happens to our completed cases post-treatment. What happens to those patients on permanent retention who drift away from the practice? What happens periodontally to cases on long-term retention—especially expanded cases that are permanently retained? What happens to patients in whom the lower incisors are finished at 110° to the mandibular plane? What happens to cases that are not quite perfect—not quite Class I molar, not quite Class I cuspid, spaces not quite closed, teeth not quite uprighted or completely rotated, dentition still slightly irregular, open bite closed end to end, closed bite opened almost end to end? What happens to cases that are finished as perfectly as we can make them?

There are at least three reasons for this near-ignorance about what happens to our treated cases post-treatment: lack of data, lack of good data, and lack of an organized data collection program. The lack of data is because orthodontic practices deal with transient populations. Malocclusions are corrected and placed on retention. Sooner or later (usually sooner), most retention patients disappear, by being dismissed or by dropping out or by moving away. In the history of orthodontics there have been few reports of significant numbers of cases five years or longer out of retention.

The second deficiency is a lack of good data. As long as we remain dependent on two-dimensional cephalometric films, we will not have a reliable way to analyze the dentofacial complex and to compare successive images. The present inaccuracies of locating key anatomical points and making precise measurements add to the unreliability of lateral cephalometrics. An added deficiency is a general neglect of frontal and, perhaps, other views. Until three-dimensional cephalometrics becomes available, with more sophisticated identification of anatomical points, we are going to lack good data. What we now have is better than nothing, but it's not the method of the future. Furthermore, the search for answers to what happens to treated cases over time is likely to be

hindered if we continue to treat our patients as members of a Class I, II, or III. Patients are individuals and must be reprised as individuals. They are unique physically and physiologically.

The last impediment to our search is the lack of an organized data base. It is obvious that the information about what happens to treated cases lies in the offices of clinical orthodontists, and that the answers we seek will be found there.

The computer and digital imaging have made the systematic collection, storage, and retrieval of data manageable and workable. The hope of the future is that once good data are available, a complete and uniform software program will be adopted, and the community of practicing orthodontists will enlist in the formation of a data base that will be open for search and clinical research. Once individual patients' data have been entered, it would be simple to pull a number of individual records based on one or more variables to study similarities and differences in the responses to treatment.

These challenges are not insurmountable. To find out what happens to our cases post-treatment, we need to develop an accurate three-dimensional cephalometric analysis, the computer programming to provide a thorough data base, and the cooperative effort of practicing orthodontists, and to encourage follow-up as long as contact can be maintained with post-treatment patients. ELG

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