158-63). I think the hypothesis that the removal of a single mandibular incisor offers an attractive approach to treatment should have been tested prior to the decision to remove mandibular premolars. This is easily done by the use of a diagnostic tooth setup. The setup offers the most information if the laboratory is instructed to reset only the remaining three incisors and canines. My guess is that the removal of a single incisor would have worked out very well.

Charles R. Sager, D.D.S., M.S.
Madison, N.J.

To the Editor:

I certainly enjoy reading the AMERICAN JOURNAL OF ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS, but take strong issue with the comments made by Dr. Clifton in his case report. His conclusions of "trauma to the jaws, and possible risk to joint function that is often present in surgical treatment" might be so in his practice, but I have not encountered these problems since I began in 1959. His patient would also have experienced a better result with surgery and orthodontic care.

George P. Quirk, D.D.S.
Houston, Texas

Adult orthodontics—An update

To the Editor:

The preceding 100-year history of American orthodontics has witnessed cyclic trends in the attitude toward, and the practice of, the treatment of the adult patient. Whatever popular opinion may hold, however, adult orthodontics is a fact of life. In the 30 years following 1950, the number of 12-year-old patients per practicing orthodontist has decreased by almost 80%. Additionally, according to a 1970 AAO poll, 90% of responding orthodontists reported treating patients over 21 years of age.

With the adult patient, treatment is quite different than with the typical adolescent. As the patient has been the proud owner of his dentition for a longer period of time, it undoubtedly presents in a somewhat more altered state (periodontally, restoratively, etc.). Treatment must be designed in a problem-oriented approach to achieve an improvement of the presenting condition rather than the "ideal" result sought in the younger patient. Our adult patients are physiologically and psychologically less adaptive, forcing us to proceed more cautiously both in treatment and the preparation for treatment. It is recommended that prior to any orthodontic therapy, the adult patient receive a comprehensive periodontal examination and evaluation of TMJ status with particular reference to the presence of symptoms in relation to the presenting problem. Accurate determinations of chief complaint, medical history, and patient expectations are critical elements that must occur prior to reaching for the separators.

Many patients are presenting for consultation as a result of the wide publicity lingual treatment has received in the popular press. The limited applicability, generally increased cost, and difficulty of patient adaptation are all factors mitigating against this regimen meeting every adult's preoccupation with esthetics during treatment. That the appliance is gaining popularity is unquestioned; however, adult and lingual orthodontics will continue to be far from synonymous.

In the nonsurgical approach, we are limited to moving the teeth within the alveolar bone. This is complicated by the increased density, reduced vascularity, and reduced cellularity of adult bone. This typically leads to increased initiation periods before we can expect to see treatment results. Movement should be bodily, on rectangular arch wire, via light forces to reduce the amount of round tripping, loss of crestal bone, and any tendency toward root resorption.

When tooth movement is not sufficient to correct the problem, surgery must be considered. The last 20 years have produced a tremendous growth in the area of orthognathic surgery and current literature is replete with articles dealing with the various avenues of surgical approach.

Presence of a compromised periodontium presents a particular challenge. Patients with incipient periodontal disease should receive an approach in which the active disease process is treated prior to orthodontic therapy via calculus removal and root planing. Only after this phase is complete and the patient is on an established preventive regimen can orthodontic therapy be instituted. Patients with moderate to severe periodontal disease will in many instances require osseous surgery in addition and this should be considered in the total treatment plan. This approach obviously involves some forecasting by the orthodontist and periodontist.

A close interaction by the orthodontist with other specialists and the general dentist should be a hallmark of treating the adult patient. In contrast to the adolescent, orthodontic therapy in the adult is often a precursor to continued treatment. Teeth may be aligned to facilitate further prosthetic, surgical, operative, or periodontal therapy. In the treatment of temporomandibular joint dysfunction syndrome, orthodontic therapy is instituted at various stages of treatment, including the final establishment of a functional occlusion at a therapeutically derived jaw relation.

That the adolescent presents a malleable framework upon which to perform our art is unquestioned. Too many of us, perhaps, overestimate the brittleness of the adult patient. A great advantage over the adolescent is that our adult patients are self-referred and, for whatever reason, have made a conscious decision to seek treatment. There are valid concerns, to be sure, but a thoughtful approach to the desires and concerns of the adult en-

hances our opportunity for biomechanical success. We can expect better cooperation from the adult; however, this goes along with the longer initiation period prior to tooth movement, and an increased level and duration of discomfort. Appointment times should be extended as the adult patient can be expected to take an active and participatory role in the treatment and will want to be kept closely informed as to its progress.

We should adopt a psychological approach with which we are comfortable, allowing us to better evaluate the patient and thus derive a mutually satisfactory treatment plan. The psychological impact of appearance change is an area in which some patients feel unprepared; therefore, the treatment conference should include discussion of what the patient might expect from family and friends. This is further stressed in that older patients report difficulty in seeing themselves as being different even though the physical change is obvious. Lest we approach adult orthodontics too tentatively, surveys of patients at various periods following therapy uniformly report that, given the same circumstances, an overwhelming number of patients would do it again.

In summary, adult orthodontics is first and foremost orthodontics and not a strange aberration of the more traditional concept of adolescent treatment. We must realize, however, that while the biomechanics of treatment (excluding growth) are similar, the psychological considerations of the adult patient demand special consideration and a lack of attention in this area may result in a treatment failure in spite of an otherwise technical success.

Joseph Carastro IV, D.M.D., M.P.H.
U.S. Army Dental Corps
Fort Knox, Ky.

Farhad Moshiri, D.M.D., M.S.
Clinical Associate Professor
Department of Orthodontics, University of Louisville
Private practice, St. Louis, Mo.

AAO MEETING CALENDAR

1987—Montreal, Canada, May 10 to 13, Le Palais des Congress'de Montreal
1988—New Orleans, La., April 29 to May 4, New Orleans Convention Center
1989—Anaheim, Calif., May 14 to 17, Anaheim Convention Center
1990—Washington, D.C., May 6 to 9, Washington Convention Center
1991—St. Louis, Mo., May 5 to 8, St. Louis Convention Center
1992—Seattle, Wash., May 9 to 13, Seattle Convention Center