THE READERS' CORNER

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(Editor's Note: The Readers' Corner is a quarterly feature of JCO in which orthodontists share their experiences and opinions about treatment and practice management. Pairs of questions are mailed periodically to JCO subscribers selected at random, and the responses are summarized in this column.)

1. What are your diagnostic criteria for a maximum anchorage case?

Two-thirds of the respondents centered their concerns for maximum anchorage around profile considerations, expressed as "bimaxillary protrusion", "full lips", or "profile". Some clinicians also employed maximum anchorage because of dental problems such as Class II molar relationships, excessive overjet, clinically significant crowding, or conservation of extraction space. Skeletal concerns included vertical excess and steep mandibular plane angle, excessive ANB angle, high GoGn relationship, and lower incisor to APo greater than 2mm. Several respondents correlated maximum anchorage with growth, space analysis, or oral habits.

How do you create maximum anchorage?

Fully 82% of the orthodontists used some form of extraoral appliance, such as cervical-pull, high-pull, and J-hook headgears. In conjunction with these, two-thirds of the clinicians used intraoral devices such as Nance holding arches in the maxilla, with one-third using transpalatal bars or fixed lingual arches as well.



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Which of these anchorage methods (osseointegrated implants, mini-implants, or bone plates) do you use? Which would you consider using if you have not already done so?

Ninety-two percent of the respondents did not use any of these methods of anchorage. A few clinicians used osseointegrated implants, but only one respondent used all three types. On the other hand, there appeared to be substantial interest in using these methods in the future, with 84% of the respondents indicating that they would consider at least one type of implant. Of these, an approximately equal number of clinicians favored either osseointegrated or minimplants, with a lesser percentage leaning toward bone plates. One-fourth of the respondents said they would consider using all three methods.

Based on your reply to the previous question, elaborate on your rationale.

Replies fell into two basic categories: those who thought these methods of anchorage conservation were too surgically invasive and costly, and thus would incur patient resistance; and those who believed the methods would be effective, especially because patient cooperation would not be required. Additionally, many clinicians remarked that implants would be more applicable to the adult patient with missing posterior teeth than to the child or adolescent patient.

Specific comments included:

- "I am unfamiliar with bone plates being used as anchorage and would not consider using them if the methodology required greater surgical intervention than implants."
- "Implants have an ideological rationale, but

due to cost and the surgical procedure they are not realistic in everyday practice. However, in adult cases with missing teeth, implants can be utilized for both anchorage and prosthetics."

• "You are virtually eliminating patient compliance and increasing the speed of anterior retraction without risking a loss of critical anchorage."

What has been your experience regarding the efficacy of these techniques?

Eighty-three percent of the respondents indicated that they had no experience with osseointegrated implants, mini-implants, or bone plates. Those who had used them generally endorsed the techniques, although there were exceptions.

General remarks included:

- "The methods that I have tried, osseointegrated implants and bone plates, were very effective and reliable; however, it was difficult for these patients to accept the surgical procedure and the associated costs."
- "I have one patient that I'm treating in conjunction with her periodontist and have been using osseointegrated implants. The patient has severe dentoalveolar bimaxillary protrusion and is edentulous distal to the first premolars. We are presently about halfway through treatment, and the anterior retraction has been excellent."

From a clinician who had tried all three anchorage methods:

• "Not really worth the invasive procedure."

From two other clinicians who had used osseointegrated implants:

- "So far, so good. The patient acceptance and enthusiasm for her new smile is excellent."
- "The technique turned out to be very effective."

How effective have you found Nance arches to be in preserving maxillary anchorage?

Ninety-two percent of the respondents reported that Nance holding arches were either very effective or somewhat effective; only a smattering of clinicians thought the appliance was ineffective. Comments centered around the observation that although the appliance was

helpful as an anchorage device, it often induced tissue irritation under the acrylic.

Interesting remarks included:

- "A Nance holding arch is useful, but not absolute in preserving anchorage. Patient cooperation with Class II elastics, headgear, lip bumpers, etc., that can be used in conjunction with the Nance appliance increases its anchorage potential."
- "If mesial force is greater than distal force, the Nance button can bury itself in the palate. This effect is diminished when Class II elastics are used with the appliance."
- "The acrylic button needs to be large enough and well placed to be effective."

2. What percentage of your current cases are beyond their initial treatment time estimate? Is your reply an estimate or an actual percentage?

Responses ranged from a low of 4.8% to a high of 35%, with the average in the area of 10-15%. More than 80% of the replies were reported to be estimates rather than actual percentages of cases.

In order of importance, rank the causes of treatment overrun.

A substantial majority of respondents rated non-cooperation as the principal cause of treatment overrun, followed by broken or cancelled appointments. Additional reasons for extended treatment times were, in decreasing order of importance: failure of teeth to erupt, patient age, emergency visits, tissue response, and miscalculation of treatment time. Other factors were related to appliance abuse.

Do you have a procedure to identify cases beyond estimate? If so, please describe.

Eighty-five percent of the clinicians had established procedures to identify cases beyond their estimated treatment times. Most of these procedures involved entries on the patient's chart, with the estimated treatment completion date reviewed at each visit or at set, periodic intervals. As a visual aid, some clinicians used a

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color code or a time line, displayed on the front of the chart, to monitor progress. Fourteen percent relied on computer reports to flag patients who might overrun their projected treatment times.

Some specific comments were:

- "The treatment chart always displays the banding/bonding date to use as a reference at each appointment. We measure the molars, cuspid positions, and space closure in millimeters at each appointment to identify any tendency for delayed progress."
- "I clearly mark the treatment record at sixmonth intervals from the starting date. At every visit I glance to see how far I am from the case start. At 18 months I expect things to be looking pretty good, or I ask myself why not. This is when I usually update the patient/parent and discuss finishing, timing, cooperation, etc."
- "There is a computer-generated code on each patient chart which tells me the estimated (target) finishing date. I look at it at every appointment on every patient."

If you do identify overrun cases, what do you do about them?

There was a central theme of reestablishing communications with the patient and parents about the causes of the delay. Letters were sent to express concern for the extended treatment time, and conferences were scheduled with the responsible parties.

The majority of clinicians tried to identify specific causes of extended treatment and to address them. Many respondents said they would see these recalcitrant patients more frequently, change treatment plans, or simply work harder to achieve acceptable results. There were frequent comments indicating that the clinician would do all that was reasonably expected to control the situation, but that if these efforts proved futile, the clinician would dismiss the patient.

Pertinent comments included:

• "A cooperation letter is sent to the parents and a copy of this to the referring dentist. If the problem continues, a parent consultation is scheduled and the following options are presented:

- "1. I will continue if cooperation becomes evident
- "2. I will consider stopping treatment.
- "3. A threat (not carried out) to charge an additional fee is made if they choose to continue and still no progress is evident."
- "When all else fails, I recommend discontinuing treatment or accepting fewer finishing goals."
- "The most important thing to me is obtaining a nice result, and I will continue treatment at my own expense when necessary to achieve that."

Do you charge an additional fee for extended treatment time?

Two-thirds of the respondents did not charge an additional fee for extended treatment time, and many of the others did so only rarely.

Some explanatory comments:

- "No way will I charge an additional fee. However, we should be charging appropriate fees to all patients that would offset these uncooperative kids effect on our profitability. I don't want the parents of non-cooperators bad-mouthing me as greedy for this limited financial benefit."
- "If due to poor cooperation, we give an option to continue and charge when this option is exercised. Yet frequently we will advise to discontinue treatment."
- "Charging for extended treatment is poor public relations. The responsible party puts too much pressure on the doctor. It compounds the aggravation of the question 'how much longer?' It's simply not worth the income or hassle."
- "With case finishing, you win some and you lose some. I dislike adding more stress to the situation (financial) when what I really want is better patient cooperation or parent understanding of why we are struggling with this case. I don't believe penalizing the parent produces better patient cooperation."

If you charge a fee for extended treatment time, do you prepare the patient/parent for the possibility of additional charges before beginning treatment?

All clinicians who charged a fee for extend-

ed treatment prepared the patient/parent in some manner. Most had a statement incorporated into the financial contract, which was usually amplified during the pretreatment conference.

Typical comments were:

- "It is mentioned on the financial contract and verbally reviewed (briefly) by the financial coordinator before the case starts."
- "There is an extra charge for excessively broken appliances, and that is stated in the contract. Breakage usually stops when extra charges kick in."
- "Our disclosure statement states that if treatment goes beyond three years we will charge an additional \$50 for each office visit."

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