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 types of cases should be started early, and why?

All respondents listed many types of cases that should be started early. More than half mentioned three major indications: skeletal discrepancies (anterior or posterior), protrusive incisors that were in danger of trauma unless brought under lip cover, and habits such as thumbsucking that affected the dentition. Also cited, in decreasing order of frequency, were esthetic considerations, preservation of leeway space, crowding severe enough to warrant serial extraction, need for distalization of first molars, and ectopically erupting first molars.

One comprehensive answer, typical of the replies, listed the following indications:

• "Crossbites, especially those with functional shifts, because the mandible could grow asymmetrically.

• "Habits, such as thumbsucking or tongue thrusting, that are causing or perpetuating anterior open bite.

• "Class III cases with a deficient maxilla, because orthopedic traction with a face mask is easier to facilitate at an early age.

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• "Severe Class II cases with overjets of 8mm or more, due to the possibility of trauma to the teeth and the cosmetic concerns of the patient and usually the parents."

What types of cases should be postponed, and why?

Again, all the clinicians listed multiple factors. The most common, in decreasing order of frequency, were when surgery was indicated and growth was not complete; when behavioral or non-compliance problems could be anticipated; when the second molars would be needed for anchorage or leveling; Class I cases, especially with minor crowding; Class II cases with moderate overjet; and obvious bimaxillary protrusion cases.

What does early treatment accomplish that cannot be accomplished as well later on?

Sixty-eight percent of the respondents listed palatal expansion, correction of skeletal discrepancies (Class II and III), and early improvement of self-image as the primary benefits of early treatment. Another 18% mentioned the correction of abnormal oral habits and the likelihood of better cooperation during the mixed dentition age. These answers were followed, in decreasing order of frequency, by the opportunity for serial extraction, the need for space maintenance due to prematurely lost deciduous molars, and the belief that more stable results would be achieved.

Some interesting comments were:

• "If we agree that form follows function, then early elimination of deflective crossbites, removal of abnormal oral habits, and establishment of normal archforms should be of benefit to our

younger patients."
• "Early treatment can accomplish many beneficial things. It can prevent injury to upper anterior teeth, we can count on better cooperation with extraoral devices, we can take advantage of growth spurts, we can create arch length easier, and we can preserve leeway space to perhaps avoid extractions."
• "Early treatment is seen by many orthodontists as an opportunity to use an anchorage device. Early treatment anchors the patient to the practice."

What is the earliest age at which you would start treatment? For what types of cases?

The replies ranged from 3 to 11 years, with the majority in the 8-to-9-year-old range, followed closely by 7 to 8. Among these respondents, the indications for starting early centered around the rationale that expansion was physiologically easier, and that growth effects could be modified more easily in this more cooperative age group.

On the other hand, many clinicians said they would not start treatment until the first molars had fully erupted. The youngest patients mentioned as candidates for treatment were 3-to-5-year-olds with dentofacial anomalies such as cleft palate or obvious Class III conditions.

Individual comments included:
• "I will see cleft palate cases soon after birth, but more typically I like to see children at age 7 to check proper eruption of the incisors and first molars, to evaluate the relationship of the arches to each other and the quality of the bite, and to try to correct or diminish skeletal abnormalities."
• "At age 7 for the initiation of a serial extraction program, at age 8 for arch development, and at age 9 for sagittal skeletal correction."

In early treatment, do you use deciduous teeth for anchorage?

Two-thirds of the clinicians indicated that they occasionally used deciduous teeth for anchorage, 20% used these teeth routinely, and the remainder reported that they never used deciduous teeth for anchorage.

Does a first phase of a two-phase treatment shorten the second phase?

Fifty-seven percent of the respondents believed that the first phase occasionally shortened the second phase, although many of them noted that this was not a common occurrence. One-third felt that the first phase frequently shortened the second phase, while only two clinicians said the first phase never had an effect on subsequent treatment time. Pertinent opposing views included:
• "Frequently the first phase shortens the second phase, but only if the treatment is well designed, well timed, under certain circumstances, and with specific goals in mind."
• "My practice data show that an early treatment phase routinely, and significantly, shortens the second phase by approximately eight months."
• "In my practice the two-phase cases are the ones that are most likely to be drawn out, because they're the ones that are most difficult. That's why they're in the two-phase category."

What is your fee structure for two-phase treatment?

There was a great deal of flexibility in the clinicians' responses. About two-thirds had separate fees for each phase. In general, the fee for the second phase was one-half to one-third higher than the fee for the first phase, with the total ranging from about $4,500 to $6,000.

One-fourth of the respondents quoted a single fee for both phases of treatment, with the fee for the first phase deducted from the usual fee for single-phase comprehensive treatment. Five percent charged a moderate fee ($1,000 or less) for what they termed "initial interceptive treatment" and then charged a full fee for the second phase.

A representative fee structure for two-phase treatment submitted by one orthodontist:
• "Phase I treatment is between one-half to three-fifths of full treatment. Then Phase II is reviewed and the previous fee (excluding records or observation fees) is deducted in full, or in part, from our current comprehensive treatment plan. This is based on the treatment outcome, and patient cooperation in Phase I."

If the first and second phase combined end up costing the patient more than a second phase alone, would this be an incentive to delay treatment and perform it in one phase? Why or why not?

Two-thirds of the clinicians thought the cost of a two-phase treatment plan would not be a reason to delay treatment. The remainder of the sample thought that it would be, although two respondents said it depended on the amount of correction that could be accomplished in the first phase.

An impressive majority believed that the first phase should be initiated on the basis of need, not cost, and that when the patient and parents were made aware of this, there was no incentive to delay treatment. Additionally, clinicians were critical of two-phase treatments that provided little or no benefit to the patient and could be accomplished more efficiently and less expensively with a single-phase comprehensive treatment plan.

Individual comments included:

• "Sixty to seventy percent of our patients need or want both phases. These are our most severe cases, and we charge the top of our fee range when both phases are combined."

• "There could be an incentive to delay treatment for cost-effectiveness and profitability in the practice, but then you're a 'molar mechanic' and not a health-care professional."

• "It is not an incentive to delay treatment if your goals are to significantly improve self-image, extract fewer teeth, and correct skeletal abnormalities. These benefits more than compensate for a fee differential between two- and one-phase treatment. If you do the first phase right, you'll earn every penny."

2. What is your usual retention regimen?

The most popular devices were Hawley retainers (55%), with a strong showing for bonded cuspid-to-cuspid retainers in the mandibular arch. These were followed by Essix or Tru-Tain clear plastic retainers. There were a few clinicians that incorporated positioners into their retention regimens, and a smattering that preferred gnathologic positioners or spring aligners. Many clinicians indicated that they used a variety of retention methods—usually Hawleys and lower bonded retainers for children and adolescents, and the clear plastic types for adults.

The length of retention varied, although the majority of respondents favored one year of full-time retention followed by an additional year of night-only retention. The clinicians preferring clear plastic retainers usually prescribed night-only wear. After the supervised retention period, most clinicians advised their patients to voluntarily continue with a retention regimen, with the warning that if they did not, the teeth would probably shift, perhaps to the degree that retreatment would be necessary.

Two typical responses:

• "I use Hawley-type retainers in both arches, and worn only at night. This regimen has reduced replacement due to loss, has improved compliance, and seems to give the same stability as full-time wear."

• "We remove the posterior brackets two weeks prior to final debonding to allow settling. Cuspid-to-cuspid sectional arches are left on during this time."

What factors influence post-treatment settling?

All clinicians listed multiple influences, but the most commonly mentioned were oral habits (digit habits, tongue thrusting, bruxing, mouth breathing, etc.) and the quality of the finished result. Other factors such as skeletal influences, growth, and function were also cited by many clinicians, along with the severity of the original malocclusion and overexpansion, particularly in adults. Ten percent thought the type and design of the retainers would influence settling. Also noted, but not as frequently, were airway

obstruction, wisdom teeth, the anterior component of force, patient compliance, the morphology and size of the teeth, and periodontal complications.

Does retention increase post-retention stability? Please elaborate.

With the exception of one "no" and one "occasionally", every respondent believed that retention had a positive effect on post-retention stability. The overriding belief seemed to be that retainers stabilized the teeth while the supporting bone completely ossified, a neuromuscular pattern was established, and the teeth settled. Some clinicians added, however, that there was no way to predict which cases would hold and which would fold. Additionally, most stated that if retention was to be at all effective, it had to be long-term. Some interesting comments were:

• "It's insurance on their investment."

• "Since the muscular forces on the teeth or outside forces are not known, retainers are the only way to be certain to hold the teeth in their proper alignment. The better the occlusion, the better the stability without retainers. However, even an ideal occlusion can go out of alignment without some form of long-term retention."

• "Everything in the physical realm is in constant movement. Tooth position is no exception. So unless you can shortstop this movement with retention, nature will take its course, and perhaps with a vengeance."

For how long should the orthodontist be responsible for retaining the result achieved?

The responses to this question varied widely, but in general, most clinicians believed the orthodontist should supervise retention for one to two years, with a slight majority favoring one year. Other timing factors were also mentioned, such as waiting until growth was complete or until the condition of the third molars was resolved. Pertinent remarks included:

• "What do you mean by responsible? Did the patient wear the retainers as instructed? How can I take responsibility for this? I often will make realigner appliances for a nominal laboratory charge even years after treatment is complete, if there's some minor shifting. This is done as a good-will gesture, not because I think I am responsible."

• "That's like asking how long should I be responsible for the patient's behavior, and I refuse to take responsibility for that. I do a pretty good job of aligning the teeth, and giving our patients efficient retainers—that's my responsibility. Wearing the retainers is the patient's."

What should the patient's responsibility be for retaining the result?

Sixty percent of the sample indicated that the patient's chief responsibility was to follow the retention directives of the orthodontist and to keep appointments. Thirty percent added that once they had stressed the importance of retention, the patient was completely responsible for retention, since cooperation was out of the clinician's control.

A typical comment was:

• "Basically patients are in charge of retention, with some guidance and assistance from the orthodontist. Just like the eye doctor who doesn't make you wear glasses—the choice is up to you, and he doesn't promise only one pair of glasses will be adequate for your lifetime."

Should orthodontic results be equilibrated? Why or why not?

Eighty-two percent of the respondents believed that finished cases should be equilibrated, but most of them said it should only be done when necessary—that is, when it would help the quality of the bite—and that it was best to wait until the case had settled before equilibrating.

All the clinicians felt that equilibration, when necessary, improved their finished results. Frequently mentioned benefits included the coincidence of centric relation and centric occlusion, balancing and working-side efficiency, and maximum intercuspation. A comment that reflected many of the respondents' views was:

• "I will do gross equilibration to get a better bite when it's indicated, and that's as far as I'll go. I'm not a gnathologist."

Do you charge a separate fee for retention? Explain your reasoning.

Eighty-five percent did not charge for retention because they believed a period of supervised retention should be included in the total fee, and they did not want a separate fee to interfere with their ability to monitor their results. The respondents who charged a separate fee felt that it put a value on retention, and since it can be an ongoing experience, it was better to start charging at the beginning. A few respondents included the retainers in their overall fee, but charged separately for the retention visits.

Some representative remarks:

• "We would rather present one fee, one financial arrangement, and equate it to four years of orthodontic benefits—that is, two years of active treatment and two years of retention."

• "I'm not going to charge patients for their retention efforts. I feel that if I charge, the patient will perceive that I'm still actively treating them."

• "We do not charge a separate fee for the retainers, but we have an appointment charge for each retention visit so that the patients can come as long as they wish and feel comfortable."

JCO would like to thank the following contributors to this month's column:
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