LETTERS

The "Surgery-First" Approach

After reading your well-described experience with the "surgery-first" orthognathic regimen gaining popularity now (The Editor's Corner, JCO, July 2019), I thought I would share my own experience. About 10 years ago, my local surgeon, Dave Edwards, and I initiated our first "surgery-first" case after having been frustrated by the standard sequence of making faces and occlusions appear worse to the patients before they got better. We found that not only did the patients appreciate that the bulk of physical correction occurred earlier in treatment, but that our overall treatment time was reduced appreciably. We attributed that to the fact that once the base structures were in a final, more esthetic and functional position, our force application with Invisalign was less critical, since we were altering the dentition in a direction that corresponded with muscular and intercuspal occlusal forces. In other words, we would then be moving teeth while swimming downstream as opposed to swimming upstream. A couple of years later, we saw the first article describing this approach.

After our initial case, we applied that experience to future orthognathic cases with the same "surgery-first" philosophy. We were able to accomplish that sequence approximately two-thirds of the time. We were disappointed only one time with a less-than-ideal surgical result that required additional time and sets of aligners in compensation. Generally, we have been well pleased with the "surgery-first" approach and continue to consider it for every orthognathic case we encounter. Of course, the oral surgeon has to be self-convinced of the concept, and flexible enough philosophically to accept that his work will not be conveniently indexed into a fairly close interdigitation at the time of surgery.

We eliminated full fixed appliances from our practice more than 12 years ago to enable us to concentrate on the use of Invisalign for all our patients, no matter the difficulty. While we had to develop new ideas and techniques to make that happen, including temporary anchorage devices, retainer turbos, molar distalizers, etc., I found Invisalign to be an excellent platform to manipulate orthognathic cases much more humanely than braces. I am convinced that the unitized appliance of Invisalign allows us to control the entire denture's posture and position on the alveolar bone by as much as 2mm with traction. This is a distinct asset in the postsurgical patient. Like many others, I will never go back to wires and brackets as a treatment regimen.

As you might surmise, our rationale was questioned by other local orthodontic and surgical offices, once they found out about our adoption of that approach. Your editorial is especially appreciated since it helps advance the snail's pace of orthodontic innovation, so that by now, I am sure every local orthognathic team is at least familiar with the concept.

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