

Increasing Your TAD Success Using the tomas[®] Pin

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Many things have been written about orthodontic mini-implants and success rates. And while some companies follow a rather nonchalant philosophy à la: “Don’t worry if it fails, just replace it, it’s not a big deal”, Dentaaurum has always tried to help its users implement a best-practice approach by promoting an honest, evidence-based philosophy. As an advocate of evidence-based orthodontics, this is how my co-operation with Dentaaurum began now nearly a decade ago and this is why I am still lecturing on this topic, many years later, teaching proper mini-implant use to orthodontists world-wide. Evidence does not lie. Evidence-based principles will yield superior results long-term. So, I am not talking about that one knock-out case that I can finally show in my presentations or perhaps publish as a case report in a clinically oriented journal. I am talking about being a wet-handed clinician practicing and using TADs on a regular basis, not to boost your ego or to prove how great you are, but for the benefit of your patients.

We all know how difficult it is, however, to implement a new technology or procedure in your daily routine. You are seeing dozens of patients every day, managing patients and parents, and making countless split-second treatment decisions and all of that while running a business, as well. Add to that a procedure which is as different from your daily practice as is the placing of mini-implants. Still, it should be very tempting to give TADs a try, because the benefit to our patients is clear. The problem is they often don’t stay stable long enough for us to use them! A TAD that remains stable is a success, in my mind. Unfortunately, TAD stability is not easily achieved and many anecdotes surround this topic. I am sure you have heard a few or have your own to tell.

If you have been following my work you know that I tend to go into depth in explaining the causes of TAD failure and that I teach that in order to maximize success with these little screws you will at times, even, need to perform such “unpleasant” procedures as pre-drilling (just to be clear this procedure is unpleasant for you, not for the patient). In an effort to make TAD use more palatable in your daily practice without giving up too many percentage points of success I have created the SAS (Skeletal Anchorage Simplified) approach. It is based on avoiding the two very well-documented and widely accepted reasons for TAD failure:

- a- The TAD is placed too close to the roots
- b- Placement with not enough or too much pressure on the bone (insertion torque)

Here, I will briefly describe how to prevent these two detrimental errors.

There are really only two predictable ways to avoid an insertion too close to the dental roots in my mind. The first one is proper implant site selection. The palate comes without dental roots, so avoidance is easy. That is always the first site I focus on. The palatal alveolar process provides areas with great interradicular distance, for example the 5/6 insertion site. This should come as no surprise as the two buccal roots act as spacers to the 2nd bicuspid, but there is only one palatal molar root. This is another site I tend to focus on. If you desperately need a tomas[®] pin on the buccal, you will, on average, lack sufficient room between the roots. Here I recommend some minor implant site preparation in terms of diverging roots. Remember we are orthodontists and in charge of root position.

How to ensure adequate insertion torques:

As insertion torques are linked to the thickness of the cortical bone it behooves you to avoid areas of extreme thicknesses, such as the anterior maxilla in certain areas (too thin) or the posterior mandible in certain areas (too thick). Other sites such as the anterior palate will provide exceptional cortical bone thickness. Here knowledge of the local anatomy is beneficial which can be obtained either through individual 3D imaging or through average thickness charts as published by myself in the AJODO. You will be able to find them on my website www.skeletalanchorage.com for free.

Summary:

As you can see it should not be too difficult to improve your success rates with orthodontic mini-implants if you only avoid the two major reasons for failure. If you've read this little recommendation more closely you will see that to avoid implant site preparation it makes sense to select the most ideal implant sites and work from there – ideally the anterior palate. The tomas[®] Pin affords you this possibility as it comes with a powerful head design that allows you to first select the best insertion site for maximum success, then develop your biomechanics from there, either direct or indirect. And this will be the topic of our next 'tip of the month'.

If you'd like to learn the full SAS approach make sure not to miss one of Dentaaurum's popular CE events such as New York City or Fort Lauderdale this November. See my full tomas[®] seminar schedule in North America at www.tomasforum.com.

For further information on the tomas[®] system please call our toll free number at 1-800-523-3946 or email sales@dentaaurum-us.com