IMPLANTS
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Potential Implant Problems Due to Continued Facial Development and Tooth Eruption

By Greggory Kinzer (/spear-review/author/greggory-kinzer/) on August 3, 2015 | (/bookmarks/bookmark/38555)

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Fig 1

In a previous post (https://www.speareducation.com/spear-review/2015/07/determining-the-completion-of-growth-for-implant-placement-in-young-patients), I discussed the potential for continued vertical facial development which can occur into late adulthood resulting in anterior implant (https://www.speareducation.com/spear-review/category/implants) restorations that have infra-occlusion to the same extent as adolescents or "young adult" individuals with residual growth potential. Although it can be difficult, facial type may help to identify the patients who will have continued facial development and tooth eruption as well as the possible problems that will occur as a result. [1]

Fig. 2

Long Face Syndrome (LFS)

The patient that presents with the highest risk for continued vertical eruption of teeth into adulthood are patients classified with long face syndrome…specifically long face females. The photo of the definitive restorations in Figure 1 was taken at the completion of treatment (single tooth implant #8, veneers #7, 9 and 10). The follow-up photo in Figure 2 was taken after 12 years and shows significant eruption of the adjacent teeth compared to the single tooth implant. If you look at the facial type of this patient (Figure 3), you will notice that she would fall into the classification of LFS. These patients al grower" or "backwards rotator." They tend to have:

- HIGH mandibular plane angle
- Weak chin prominence

- Convex profile
- Prolonged incisor eruption and retroclination

Short Face Syndrome (SFS)

Short face syndrome patients are classified as a “horizontal grower” or “forward rotator.” They tend to have: 2

- LOW mandibular plane angle
- Strong chin prominence
- Concave profile
- Maxillary incisors procline to chase the horizontal mandibular growth.

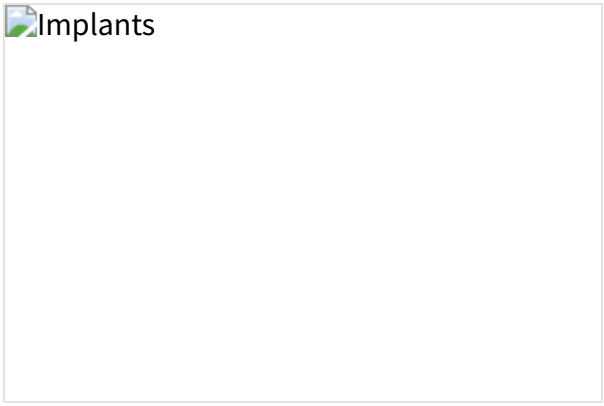

Fig. 3

The long-term potential impact on maxillary anterior implant restorations for SFS patients is not the incisal edge and gingival margin discrepancies like you would see in LFS patients. The problems that these patients will experience are issues with screw loosening, abutment fracture or the implant crowns becoming uncemented due to the horizontal mandibular growth. While the “natural” maxillary anterior teeth procline to chase the mandibular growth, the implant restoration doesn’t. The resultant changes thereby lead to traumatic occlusion of the implant restoration.

Evaluate the facial type of the next patient you treatment plan for implant therapy. If they fall into a LFS or SFS, it may be wise to have a discussion with them about the possible long-term changes that may occur.

Reference

1. Heij DG, et al. Facial development, continuous tooth eruption, and mesial drift as compromising factors for implant placement. Int J Oral Maxillofac Implants. 2006 Nov-Dec;21(6):867-78.

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