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EDITORIAL

Has implant dentistry lost its direction??

What has happened to implant dentistry and to our patients? Over the past few years, we and more than a few of our colleagues have observed a dramatic increase in dental implant complications. There are instances of screw loosening, implant and/or abutment fractures, implant surface exposure, and retained cement following crown insertion. Additionally, we all too frequently observe unrepairable results, usually related to either incorrect implant positioning or restorative deficiencies. We have seen too many implants placed into allogenic bone with apparently minimal to no contact with host bone. Are these problems inevitable or are they the result of too many clinicians now placing implants? Do dentists placing implants have the understanding of the dynamics of implant dentistry and the biologic basis necessary for successful implant outcomes?

It is almost 50 years since we were exposed to the research and teachings of Professor P-I Branemark, and Drs. Ulf Lekholm, Ranger Adell, Tomas Abrektsson and Lars Sennerby. Implant survival rates were very high as were long term success rates. In those early days, surgical aspects of implant dentistry were often limited to oral surgeons and periodontists and implant placement and restorative protocols were very conservative. Diagnosis and treatment were primarily limited to fully edentulous maxillae and mandibles, implants were "buried" from four to six months following placement, implants were threaded and manufactured of commercially pure titanium. Within a short time after introduction of the Branemark system, Straumann introduced a highly researched and biocompatible implant system. A few other systems were on the market and dental implants were introduced to the profession and public as a fantastic, predictable method for replacement of missing teeth. Implants were subsequently used to replace missing single teeth, restore partially edentulous patients and placed immediately following tooth extraction. Guided tissue regeneration was introduced to repair or enhance bony jaw defects and an unending list of so-called biomaterials was introduced to enhance, fill, repair or regenerate bone lost to trauma or periodontal diseases. The number of so-called new bone "enhancers" is seemingly unending.

Over time more and more commercial companies have introduced varying types, shapes and sizes of implants. Each implant having its own "unique" reported specific virtue and all at a wide range of cost. There are now estimated to be over 700 types of dental implants on the market. Most have not lived up to the early implant systems rigor of long-term survival and success rate documentation. The early implant protocols were seemingly ignored or forgotten. There were seemingly undocumented concepts to decrease healing time, shorten the interval between implant placement and loading and eventually the idea of immediate implant placement and immediate loading became popular. How did the idea of rushing to implant restoration evolve? Where did the pressure to restore early evolve from? The patients? The profession? Why are patients and clinicians in such a hurry to have a final implant supported restoration that they are willing to forgo even a discussion of the risks involved.

Commercialization of dental implant technology is not necessarily bad, but what is questionable is the level of training or lack thereof provided in short term "weekend courses". Additionally, efforts teaching the rigors of surgical and restorative implant dentistry in webinars needs scrutiny. Adequate diagnosis and treatment planning are necessarily the required basis for dental implant placement, restoration and maintenance. Short term "weekend courses" cannot devote adequate time to wound healing, bone biology and repair, flap management, diagnosis, number of implants necessary to successfully restore patients' complications, correction of problems and ultimately, when not to place implants. These skills and concepts require time, understanding, experience and study, usually best provided in formal university based postgraduate specialty training programs. Where is the evidence and data to support socket grafting, not to mention the wide variety of such grafting materials? In our opinion, it does not convincingly exist.

Computerized implant planning software is a marvelous addition to implant dentistry. Restorative dentists and prosthodontists must be a key part of the team and will help minimize implant problems through careful treatment planning. Such treatment planning is primarily indicated when multiple teeth are missing, requiring several implants to properly restore the patients to proper function and esthetics. Restorative dentists must be involved with pre-planning and

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plan execution. At the end of the day, this is a restoratively driven treatment and not a surgical one.

All too often the maintenance aspect of implant treatment is forgotten. It is imperative that patients with dental implants receive periodic routine periodontal maintenance similar to those patients with teeth. All too often patients perceive that once implants are in place and in function, periodic dental maintenance is unnecessary. A review of the early implant textbooks regarding surgical and prosthetic protocols, bone physiology and bone healing might well be in order. The early pioneers in the field of implant dentistry had a ''recipe for success''. Perhaps we should take the time to reflect on that recipe for success!

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