Is Implant Dentistry a Restorative Discipline With a Surgical Component? A Change of Definition is Proposed

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According to the ''Glossary of Implant Terms'' published by the *Journal of Oral Implantology*,[1] implant dentistry is defined as, ''an area of dentistry concerned with the diagnosis, design, and insertion of implant devices and implant restorations that provide adequate function, comfort, and esthetics for the edentulous or partially edentulous patient.'' This comprehensive and balanced definition is often substituted in implant circles with the shorter one stating that, ''implant dentistry is a restorative discipline with a surgical component.'' The purpose of this letter is to challenge this unofficial and inappropriate (in the author's opinion) definition and attempt to propose the new one, reflecting the importance of surgical-restorative teamwork.

Beginning with an extensive research of Dr Per-Ingvar Branemark in the 1960s and 1970s, implant dentistry was initially born as a branch of *surgical* science that had found its applications in dentistry.[2] Basic necessary principles were outlined with surgical precision for osseointegration between ''living bone and the surface of a load-carrying implant'' to succeed.[3] A variety of implant companies emerged in the late 1970s and 1980s, and implant dentistry quickly spread around the globe and became accepted as a standard of dental surgical rehabilitation of the edentulous condition. As surgically derived new discipline, implant dentistry's surgical techniques and principles were emphasized first. How to achieve osseointegration was much more important than how to restore integrated dental implants. For that reason, oral surgeons and a limited number of surgically trained general dental practitioners were the first ones to start practicing implant dentistry (oral implantology).

In the 1980s and 1990s, multiple malpositioned but well-integrated implants that were impossible to restore to a proper occlusion and function led to a growing concern among restorative dental practitioners. A large number of them decided to take a control of the overall situation, were driven to surgery and surgical courses, and became involved with all components of implant dentistry. Surgically trained general dentists with knowledge of occlusion and restorative principles were successfully placing and restoring their own implants. A concept of a restoratively driven implant dentistry emerged with a starting point and final destination clearly identified: placement of an implant(s) only after completion of a diagnostic work up resulting in an osseointegrated implant fixture that can be restored to a proper contour, function, esthetics, phonetics, health, and comfort; the goal of modern dentistry.[4]

In the first decade of the 21st century, this concept became dominant, and implant dentistry unofficially became a restorative discipline with a surgical component. This

commonly utilized definition became so ordinary that there is hardly an implant meeting or conference where it is not mentioned at least one time, usually in relationship to a surgical mishap. The author respectfully objects to this definition.

A component, according to a Webster's dictionary,[5] is a part, an ingredient, one of the elements, or a constituent. It is routinely used with a word ''major,'' ''important,'' or ''key,'' etc, to emphasize its importance. Without a preceding accentuated adjective, it appears to be used as an element of average significance. In implant dentistry, what should we select as a discipline and what should become a component?

Should we be calling implant dentistry a restorative discipline with a *surgical component* when it involves a complex lateral sinus lift with iliac crest bone graft, distraction osteogenesis, nerve repositioning, or perhaps a full-arch ridge-split with GTR procedure? A major preparatory surgery will lead to the eventual placement of a one or two implant fixture that can be restored in a simple fashion with a crown-and-bridge approach with stock abutments and PFM crowns. Implant dentistry is restoratively driven, but is it the restorative discipline only?

Or should we be calling an implant dentistry a surgical discipline with a *restorative component* when a simple 30-minute flapless surgery is done for 2–3 fixtures followed by a complex and comprehensive prosthetic rehabilitation requiring a preoperative wax-up, mounted study models, establishment of a protective occlusion, and correction of VDO, custom abutments, ceramic clinical and laboratory work, etc, for a complete dental rehabilitation? Implant dentistry is restoratively driven, but is it the surgical discipline only?

In the first case, it is obviously not a surgical *component* of a complex major surgery that took years for a dental/oral surgeon to learn and master. In the second case, it is not a restorative *component* due to significant complexities of occlusion and prosthetic reconstruction that took many years for a restorative general practitioner or a prosthodontist to realize and become comfortable with.

The time has come to re-evaluate the definition of implant dentistry and get rid of the word ''component'' as it implies something of less significance. There are no components in implant dentistry or oral implantology. Sometimes, there is a complicated restorative and simple surgical part, sometimes, it is reverse, and often, both are essential and complex parts of the unique restoratively driven discipline called implant dentistry that require an equal expertise in both surgical and restorative dentistry of a well-trained general dental practitioner or a specialist.

Dentistry overall is restoratively *driven* science. Implant dentistry is not a restorative discipline with a surgical component, as much as it is not a surgical discipline with a restorative component. Implant dentistry, being a part of dentistry, is historically surgically derived, prosthetically driven both and equally surgical and restorative discipline. After all, at least half of US dentists graduate with a DDS degree, Doctor of Dental Surgery.

Based on the above discussion, it could make sense to revise the existing definition of Implant Dentistry: Implant dentistry is a team-driven *surgical-restorative discipline* utilizing preprosthetic reconstruction of deficient alveolar hard and soft tissue with an ultimate goal of comprehensive restorative and occlusal rehabilitation of missing or failing teeth. The importance of teamwork cannot be overemphasized in implant dentistry and it should include a surgical and restorative specialist (or a trained general dentist comfortable in both aspects), a laboratory technician, and often a representative of an implant company.

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Only after we define implant dentistry this way can we properly teach the science and clinical practice of implant dentistry to our dental students. This philosophy can be taught in the departments of Oral Implantology in dental schools headed by prosthodontists or knowledgeable and experienced general dentists who employ both surgical and restorative practitioners assigned to teaching students and performing implant cases. There are no components or less important parts in modern implant dentistry. There is an equilibrium and equal participation of dental professionals trained in surgical and prosthetic reconstruction. It is combined surgical-restorative discipline driven by teamwork.

References

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