



## Introduction to Implantology Dentalveolar Surgery

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### Introduction

Dental implant is a dynamic science that practitioners are relying on for oral rehabilitation. Due to the higher success rate, dental care is turning more and more toward using implant-based oral prosthetics. However, the drawbacks are still of concern in this field due to errors occasionally encountered among practitioners with improper training, weak knowledge, or underestimating the case difficulty. Those errors can accumulate at each phase during the process of planning, taking records, interpreting data, surgical intervention, prosthetic rehabilitation, and finally the maintenance program. Furthermore, the misleading marketing messages that can introduce novel tools or ideas if not handled carefully especially by junior or no specialist practitioners. What adds more to the complexity of this aspect is what I like calling the “case requirement,” (CR) which is not a secret neither a mysterious side in the field, it is just being forgotten occasionally. “Case requirement” is indicating another dimension to the field of rehabilitation based on the applicability factor, patient’s preference, and demands that are becoming sophisticated more and more in the 21st century. As the rhythm of life is moving faster, communication is following and hence the patients’ outcome demands, to be faster and precise.

In this chapter, we are aiming to introduce the textbook to readers in the field of oral maxillofacial rehabilitation through cases of special challenges that might face practitioners in the field. The consideration of the CR aspect and the anticipation of future research will enlighten possible solutions and pitfall tactics. Yes, we are trying to be as idealistic as we can; nonetheless, we will always be facing factors that might modify our intervention. The trick is to find this perfect customized management plan.

Hence, the dynamic advancement in the field is taking place on different levels that are important for any implantologist to comprehend, at the clinical, micro, and Nano levels. The implant surface characteristics, the implant soft tissue interface, alveolar bone reconstruction, the involvement of micro-organisms, the indications of antibiotics in implant surgery, Osseo integration, cellular attachments, and the advancement of implant designs are all areas of important research topics nowadays that are going to be explored in the book hoping to present more options for future care.

It is well known that training in the dental implant field usually starts with the basics of planning, starting from case interview, examination, investigational images, analysing the data, considering case requirement, finalizing the rehabilitation plan, dental extraction, alveolar reconstruction, implant surgical instalment, prosthetic rehabilitation options, patient cooperation, and establishing a recall schedule. It is unfortunate that a lot of training programs are focusing mainly on the technicalities including implant placement and prosthetic restoration while forgetting the importance of the scientific background in applying the clinical practice. And it causes a dilemma via producing graduates who are not able to connect the basic science, research, clinical application, and the future potential to improve the field. Therefore, it is not uncommon that during residents teaching, rounds, and board exams, candidates might show technicality excellence without knowing the justification, and hence, reaching into a block when facing a challenge in a case, a complication, or an examination question.

The technical advancement in dental and medical care is continuously improving and producing ideas; however, still a lot of doubts that one day technology might replace a human surgeon to operate on another human solely. The reason behind that doubt is the simple existence of human race that will always show variable clinical conditions that can never be the same and might differ on three major categories, patient’s, operator’s, and material’s pertinent factors.

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