Editorial

Digital dentistry: myth or reality?

In an age in which digital overspreads in every area of the social, personal, and working life, the dental field is certainly not an exception.

What, not so long ago, seemed to be "the future", now constitutes the "present" of our daily work.

The digital revolution has undergone a rapid development up to our days, in which we can make use of a real digital workflow, which changes totally what was the used to be plan, from the first steps of data collection to the diagnosis and design of a plan, to the diagnostic and communicative simulation, up to the realization of the treatment.

In other words, digital dentistry is today a mature and complete workflow that leverages multiple tools and systems to create 3D models of the patient's dental anatomy and it can produce accurate digital dental restorations leading to a huge paradigm shift in all aspects of dentistry.

In contemporary dentistry, digital technologies such as conical beam computed tomography (CBCT), mandibular movement scanning, intraoral 3D scanning, facial scanning, 3D printing, and personalized treatment planning have taken on an important role in both research and clinical practice toward the goal of precise medicine.

These technologies are having a major impact on processes and procedures, as well as workflows and time spent in clinical procedures, resulting in more personalized, predictable, and effective treatment by reducing iatrogenic complications.

Fingerprints with intraoral scanners (IOS), digitally made prostheses, augmented reality and virtual patients have become a reality today.

All this information interconnects with each other, making it much easier to include all the dental specialties involved in multidisciplinary treatments and even to make use of advanced artificial intelligence (AI) and Machine Learning (ML) tools in the planning process of the treatment.

The current digital revolution is different from the previous ones, because we find the emergence of artificial intelligence as an element that seeks to complement or replace the human factor.

Many healthcare professionals have already integrated digital technologies into practical workflows, which reduce reliance on manual skills and visual recognition.

Although the principles on which clinical decisions are based remain the same, the incorporation of digital technology is bringing about radical changes in the relationship and communication with the patient and with other members of the working group, in procedures and in clinical materials.

Today we can say that every branch of dentistry has been strongly influenced by digital technology and has had a significant impact on dentistry like never before, and this has led to a radical change in the way we work by facilitating care and improving the results of clinical treatment. Also in dental research, we can see the continuous growth of many new articles and the birth of new journals focused on digital dentistry and this is favoring the constant discovery of new therapeutic possibilities.

Despite all this, even today among dentists there is a certain confusion and perplexity when it comes to introducing new tools and digital processes in their clinics. As industry professionals we should always make sure that our knowledge and skills are up to date to improve our ability to care for our patients. The digitalization of dentistry is having a huge impact on workflows and time spent on clinical procedures.

Make no mistake:

The digital revolution has now reached dentistry, it is not the future, it is now the present. Enter the world of Digital Dentistry now!

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