



DENTAL MEDICINE

THE IMPORTANCE OF DIGITAL PHOTOGRAPHY

What is the importance of photography as a complementary means in the diagnosis and planning of clinical cases?

Photography has an increasingly important role in this area.

From the registration and documentation of clinical cases, how to extract data essential for diagnosis and planning, how to communicate better with patients, or with colleagues in different specialties and with the laboratory, and specially how to define and conclude treatments in a more predictable way.

Photography also plays a key role in forensic and medical-legal situations, for example, in cases of accidents involving trauma or even death. Regarding the involvement of insurance companies, it may make the difference when you need to know what kind of reimbursement they should provide. In some pathologies, it is also essential to control their evolution over the years.

What is the importance of the use of professional cameras and specific accessories in the registration of intra and extraoral images?

Dental photography, for recording conventional clinical cases, does not have great variations or difficulties. As I usually say, photography in dental medicine is photography for “monkeys” ... settings and setups are almost always the same... we do not have to change anything in the camera. However, dental photography is probably the area where the work is done in the worst conditions regarding the "model" we have to photograph, namely in intraoral photos: we have to shoot very close to our object, to have specific magnification, but without distortion; the mouth is a "black hole" where the light does not enter because of the lips; we need to have everything in focus, using great depth of field, which means that the diaphragm has to be almost closed, and so, having practically no light at all.

Who works in photography, understands the extreme situations that have to be faced. For this reason, the use of appropriate macro lenses, which allows magnification, cameras that allow these lenses to have the highest quality as well, and then we use dedicated flash for macro illumination. In addition, we have to use various accessories such as lip retractors and intraoral mirrors respectively to retract the lips and photograph the inside of the mouth.

For this reason, appropriate macro lenses have to be used, to allow enlargements. Cameras that allow to use those lenses, also have more quality, and a specific flash for macro lighting. In addition, several accessories such as lip retractors and intraoral mirrors, used to retract the lips and photograph the inside of the mouth clearly, have to be used.

In addition to this problem, references regarding orientation of photographs should be used otherwise, an excellent clinical case can be transformed into a lost case.

This issue is very important because in reality, photographing is much more than just pointing and shooting. Our clinical cases should be accurately recorded so that there is reproducibility, superimposition, and consistency in that record over time, for the information to be recorded exactly as we see it with our naked eye in the patient's mouth, without alterations, distortions that compromise exactly everything we mentioned earlier.

The concept developed in 2007 called "Digital Smile Design" presents a new aesthetic perspective, explanatory more visual and artistic. What do you think about the importance of this concept?

The study of the Smile through images captured in photography, has been used for a long time, namely to study the initial cases and communication with the laboratory. However, Christian Coachmann applied a simple tool that we all have "handy" on the computer, a program to create presentations (powerpoint or keynote) that has greatly facilitated this study. He developed a protocol in which, based on some reference lines and different guides drawn, superimposed with the images of the patient, allows us to study in a more correct and efficient way and even to perform measurements of our proposal for the new smile.

These images can be shared with our colleagues of different specialties and fields being able to interact, hearing and sharing opinions, send information to the laboratory in order to finalize the project and in a very didactic and simple way, explain to our patients exactly what will be done and how his new smile will look like.

This concept, in addition to being in fact much more visual and perceptible, in order to present a treatment plan, greatly facilitates all the communication between the different agents involved in this art of creating smiles. This type of study has evolved a lot and we are now able to do everything digitally, with intraoral scanners that capture the images of the patient's mouth, and allows us to digitally plan with specific software and create 3D smiles almost immediately.